

## Appendix One: Summary of Submissions Received

### *Response from the Operator of the Seawin Emerald*

1 **M&B Fishing Limited** (MBF) is the charterer of the *Seawin Emerald* and this vessel fishes under the MBF permit. MBF considers that the suggestion that the entire Kermadec area be closed to longlining and all NZ waters be closed to daytime setting is a gross over reaction to what has allegedly happened on one trip.

2 MBF submit that this is a new fishery whereby new techniques are being utilised and the new technique may or may not raise issues regarding bird strike. If in fact this is the case MBF submit that they are more than happy to work with the Ministry of Fisheries, other fishers, the quota holders and any other stakeholders to develop the equipment and techniques that ensure that bird catch is reduced to a minimum.

3 MBF submit that the suggestions made to you that MBF may not be prepared to cooperate are without foundation and it is prepared to delay the departure of the vessel until the parties are reasonably satisfied with the mitigation measures in place on board the vessel.

4 MBF also submit that MFish's reference to its history of non-compliance with existing rules and regulations is a gross exaggeration of the actual situation and refer to an earlier incident resulting from a misunderstanding of the requirement for an Australian high seas permit rather than a disregard for fisheries legislation.

5 In relation to the issue of bird strike MBF has a number of proposals to reduce the incidents of such strikes including:

- Improved tori line design
- Adoption of other bird scaring devices
- Installation of an underwater shooting device
- Investigating the use of sound vibration deterrence devices
- Biodegradable starch bags to protect bait
- Retention of all offal

6 MBF ask that you reconsider your proposals and submit that they look forward to working with MFish and DoC on measures to dramatically reduce if not eliminate bird strike.

### *Support Received in Response to the Measures Proposed*

7 **Kerren Packer** congratulates your decision and submits that all commercial surface longlining should be banned as it is destructive and non selective. He notes that he has it on good authority that historically commercial "tuna surface longline" vessels are shooting the same seamounts over and over again, yet their only reported landings are swordfish and more swordfish which has basically wiped out recreationally available swordfish stocks.

8 **Graeme Bell** commends you on your actions. Given the low value of this fish on the retail

market he questions the fishery as viable commercially. He notes that figures quoted by the recreational sector suggest that this fish is far more valuable to the New Zealand economy as a recreationally targeted species.

9 Royal Forest and Bird Protection Society of New Zealand Inc (**Forest and Bird**) Forest and Bird strongly support your proposals to avoid, remedy or mitigate the adverse effects of fishing in this area. They contend that voluntary measures and management of seabird bycatch through Codes of Practice have proved to be ineffective in a large number of New Zealand fisheries.

10 Given the threat status of the Antipodean albatross, the vulnerability of a number of marine species caught as bycatch in longline fisheries, particularly in the Kermadec area and the known non-compliance of all vessels involved in these fisheries, Forest and Bird considers the bycatch risk posed by this fishery to be too great to allow it to continue operating with only voluntary mitigation measures required.

11 Further, Forest and Bird supports the call to urgently investigate this vessel and prosecute as appropriate. In the interim, the vessel should be prohibited from fishing in the New Zealand EEZ.

12 Although Forest and Bird supports emergency mitigation measures for the full three months provided for in Section 16 of the Fisheries Act, they urge you to extend these measures through Sections 11 and 15 of the Act to ensure the long-term mitigation of fisheries impacts on these globally important seabirds.

13 They contend that the Kermadec Fisheries Management Area (FMA10) should be closed to longlining year-round. Closure between December 2006 and February 2007, although inhibiting further impacts by the vessel *Seawin Emerald*, would not protect these vulnerable seabirds exposed to longliners during the remainder of the year.

14 Forest and Bird also contend that it is also vital that effective mitigation measures such as a restriction to night setting be applied to all longline fisheries throughout the New Zealand EEZ. If such measures are not implemented across all fisheries employing this method, the possible redistribution of fishing effort to other areas will continue to threaten New Zealand's seabirds and cause vulnerable and globally important species to decline to critical levels.

15 Worldwide Fund for Nature (**WWF**) recognises that it is extremely unusual for the Minister of Fisheries to consider 'emergency measures' under section 16(2) of the Fisheries Act, and are pleased to see this response in light of the observed bycatch in what is essentially a new fishery.

16 WWF supports the area-method closure proposed for surface longlining in the FMA 10, the Kermadec Fishing Management Area. They urge that this closure is not lifted until there is robust evidence that mitigation and management of the fishery is effective at preventing seabird bycatch.

17 WWF submits that is likely given the current knowledge that the restricting all surface longlining to setting and retrieving within the hours of darkness will be the most effective method for reducing the bycatch of seabirds, including the Antipodean Albatross. WWF commends the Minister and the Ministry of Fisheries for proposing the restriction through New Zealand's Exclusive Economic Zone.

18 WWF further urges the Ministry of Fisheries to ensure that 100% of trips targeting swordfish are observed by the Ministry's Scientific Observer Programme.

## *Emergency Situation*

19 Aotearoa Fisheries Limited (**AFL**) submit that their understanding of the facts pertaining to this event suggests that it is an isolated incident rather than an emergency. It is their view that the adoption of established bycatch avoidance techniques are likely to avoid future events of this scale and that the closure of the entire Kermadec area to surface longlining would be an over-reaction that does not take into account the impact of this action on the achievement of the utilisation purpose of the Act. AFL agree that action needs to be taken but they oppose the use of emergency measures for this purpose and argue that it is not an 'emergency' in terms of the criteria in s16 of the Act.

20 AFL note the MFish advice to the Minister that he take into account "societal values" associated with the species being impacted when determining whether an impact is adverse. This is not information that should be considered when avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment as required under s8 of the Act (even if such "societal values" could be measured). Advice from the Ministry that conflates the requirements of the Fisheries Act and concepts from the Ministry's Statement of Intent that have no basis in law is bad advice that could easily lead the Minister into unsound decisions.

21 It is AFL's view that the Minister only take into account best available information on past, present, or future effects of fishing and the biological impact of the fishing activity on the species and/or ecosystem. Using this information they recommend that the Minister not take any emergency measures and rely on voluntary measures until such time as regulations are brought in under normal processes.

22 **Sanford** does not believe that the use of s16 emergency measures is either necessary or desirable to resolve this issue. Moreover, they are not persuaded that you have stated the reasons why he is satisfied that there is or has been:

- i) a serious decline in the abundance or reproductive potential of 1 more stocks or species; or
- ii) a significant adverse change in the aquatic environment

... as is required to implement emergency measures.

23 Sanford do not support the use of emergency measures to address the issues outlined in the Ministers letter as they believe that the situation does not constitute an emergency and does not warrant the sweeping use of these powers. It is also unclear to us which provisions of s.16 (7) would empower the Minister to restrict surface longlining in the whole of the New Zealand EEZ to the hours of darkness. It is hardly an area, method or fishing season restriction.

24 Te Ohu Kai Moana (**Te Ohu**) disagrees with the Ministry that emergency provisions should be used to deal with this matter and are far from convinced that the incident and the resulting seabird bycatch meet the criteria set out in section 16.

25 **Salvatore Zame** opposes the use of emergency measures for the purpose of reducing seabird bycatch. It is not an "emergency" in terms of the criteria in s16 of the Fisheries Act. He suggest that the Minister should talk with industry about implementing voluntary mitigation measures along the lines of those that have been successful in the rest of the longline fleet.

26 Oceanlaw New Zealand (**Oceanlaw**), on behalf of several clients have reviewed MFish's initial position and submit that you have no jurisdiction or basis to act under s16(2) of the Act.

Oceanlaw consider this is because:

- a) The legislative provision which deals with fishing related mortality of wildlife taken is s15;
- b) Section 16 does not apply fisheries related mortality rates and has nothing to do with potential adverse effects on wildlife;
- c) Even if s16 was to apply, the three triggering events have not occurred; and
- d) You are required to act on a detailed analysis and in this case a more rigorous analysis is required that this type of reaction to impacts of a single fishing trip.

27 Oceanlaw submit that if the proposed action under s16 does go ahead, their clients have instructed them to apply to the High Court for interim orders preventing the decision taking effect.

28 Pescatore Fishing Limited (**PFL**) operates the vessel *Santa Maria 11* that targets swordfish in the Kermadec FMA and submit that this vessel operated in the same area and at the same time as the vessel *Seawin Emerald*. PFL submits that the *Santa Maria 11* has had no problem with birds for all trips prior to the last trip at the Kermadec FMA or in all other New Zealand fishing areas. PFL refer to another vessel the *Rose Louise* which was also day setting in the area at a similar time as the *Santa Maria 11* and both vessels used mitigation measures without problems.

29 PFL submits that emergency measures should ensure that all vessels abide by mitigation rules and the closure of the Kermadec FMA is not the answer. Without mitigation seabird bycatch will occur in every area of New Zealand.

#### *Actions taken against one vessel versus the whole fleet*

30 There was universal concern amongst fishers contacted by phone that emergency measures were being considered for the whole of the surface longline fleet, which many of the fishers considered to be a form of punitive action against them when they consider the problem to be specific to one vessel. They were extremely concerned that the vessel in question is a charter vessel so they see that they are being penalised for something a foreign vessel has done.

31 **Steve Haddock** submits that it is MFish's mismanagement of the swordfish quota round and the fact that targeting swordfish is now allowed is responsible for the current situation. He is concerned that the entire tuna fleet is being penalised for the action of one vessel. Steve Haddock suggests that the use of s16 provisions is an abuse of power and the offending vessel/owner should be penalised not the entire tuna longline fleet.

32 Talleys Fisheries Limited (**TFL**) submit that many vessels operate in the area with responsible mitigation measures and they consider that good operators can avoid seabird catches and the Ministry should not penalise all stakeholders for the actions of a few poor operators.

33 The Solander Group's (**Solander**) position in this matter is that they are most disappointed that the actions of one vessel can undermine all the good work undertaken by the majority of the Industry in mitigating seabird interactions. If the incident is proven, Solander support appropriate action being taken against an offending vessel/owner in the form of removing or restricting the vessel's right to fish. They believe that appropriate measures are available within the Fisheries Act to condition permits or cancel vessel registration. They do not agree that other compliant vessels should be excluded from this Fishery.

34 **E. W. Gartrell** (Solicitor) made a submission on behalf of his client, a stakeholder owning quota and leasing out ACE in the Kermadec Fisheries Management Area. He states that his client is probably the largest quota holder in the swordfish fishery. Gartrell considers that it is axiomatic that responsible fishers should not be penalised because of the actions of one vessel, when others have consistently and responsibly fished in the area.

35 The New Zealand Federation of Commercial Fishers (**the Federation**) urge you to reconsider your position in respect of the implementation of these ‘emergency measures’ alternatively applying measures that are less onerous whilst providing the necessary effect. They submit that the present proposal impacts upon all surface long-liners when in fact, the measures need to apply to those that caused the problem.

36 Further, the Federation do not accept that a ‘blanket closure’ of the New Zealand surface longline fishery within the Kermadec area is an equitable example of “emergency measures” given the circumstances surrounding this particular case. They propose that there are alternative ‘emergency measures’ allowable under section 16 of the Fisheries Act 1996 and that these should be fully explored.

37 **Sanford** submit that they have had a considerable involvement with the Southern Seabird Solutions initiative, the aim of which is to promote the adoption of fishing practices that avoid mortality of southern hemisphere seabirds. They unquestionably believe in the needs to avoid or mitigate seabird mortalities and cannot condone the events described. However, Sanford submit that it is also an obvious conclusion that if the incident referred to in the Ministers letter occurred in absence of the proper regulatory deployment of tori lines then that non-compliance should be addressed separately and does not constitute a basis for applying sweeping emergency provisions to the entire surface longline fishery.

38 The Tuna Management Association (**TMA**) note with some distress that the reported action of one chartered fishing vessel may result in the closing of a very large area of the New Zealand Fisheries waters to the surface longline method for a period of three months. They believe this action is both an unfair and unnecessary restriction to New Zealand domestic surface longline fishers. It is the TMA's belief that domestic surface longline fishers should have been given more time and opportunity to defend their position prior to this action being taken. If this closure proceeds then there will be serious consequences for New Zealand domestic surface long line fishers.

39 The TMA appreciate that the reported numbers of birds caught by the offending vessel is unacceptable and it is disappointing that strong action appears not to have been taken against this particular vessel before proposing to close the fishery for all. It is also their understanding that an appropriate briefing was given by a representative of Southern Seabird Solutions prior to the vessel fishing in New Zealand waters. It appears that this advice and best endeavours has been ignored by the vessel with very serious results.

40 The TMA agree that setting of hooks and use of tori lines during the dark hours will reduce seabird bycatch and support this. It should be noted that representatives of DoC and Southern Seabird Solutions have been working with the domestic surface longline industry towards continued avoidance of seabird bycatch.

41 The TMA submit that many domestic and charter operators have worked very hard to avoid this very situation and it is very disappointing that this closure is proposed without consultation with those who are most affected by this proposed closure. We understand that other measures are

available to enable you to take action against the vessel that is at fault without excluding compliant vessels by this proposed closure. Tuna Management Association cannot accept that an entire fishery can be closed down through the actions of one offending vessel.

42 **Te Ohu** is concerned that 58 seabirds have been caught off a single fishing vessel targeting swordfish and bigeye tuna. They do not believe, however, that the wider domestic surface longline fleet should be punished for the failings of a single vessel. The vessel involved was operating illegally – without tori lines – and with what appears to be little if any regard to mitigation measure employed by the New Zealand domestic longline fleet.

43 **Salvatore Zame** submits that understandably some action needs to be taken to reduce seabird by-catch for those new Australian vessels targeting SWO however the domestic longline fleet has been operating effectively for the past 20 years with minimal seabird interaction (as can be demonstrated with the observer reports). Due to the actions of one vessel the whole of the domestic fleet will be penalized. Salvatore Zame further notes that the actions of one vessel could lead to the implementation of draconian measures that impact heavily on our business when the NZ domestic fleet has been operating effectively with minimal seabird interaction for many years.

### *Existing measures in place*

44 **Robert Aitken** (Skipper: F.V. Stromboli –Gisborne Fisheries 1955 Ltd) notes that he has implemented a variety of measures on the Stromboli to mitigate seabird bycatch including: dyed bait, completely thawed bait, 250m long tori line deployed, Shooter that gives the line plenty of slack, and lead swivels on all clips.

45 **Dale Coker** submits that they uses a line shooter and float drop lines to get the line and baited hooks deep quickly, also we use a Tori line for daytime and night time sets, with these methods they have a zero bird death catch. He notes that he does not catch as many swordfish with this method that his main focus is tuna not swordfish and that when swordfish is targeted, there is always going to be accidental catches of sea birds. He also notes that the NZ longliners in 2000 established a code of practice to deal with these issues.

46 **The Federation** acknowledge the seriousness of the situation and certainly do not condone any form of inappropriate fishing practice or behavior, particularly in respect of interactions with seabirds or marine mammals. In fact, they note that they have participated and contributed towards identifying unsatisfactory fishing practices and mitigating against them. There are numerous examples of proactive and innovative thinking within the New Zealand domestic fishing industry that have lead to the development and implementation of mitigation measures. These initiatives are regularly monitored and improved upon. The Federation believes that this needs to be recognized in the overall context of the situation and emergency measures should be applied to the perpetrators in this case – not the entire surface long-line fishery.

47 **Oceanlaw** submit that the industry has put a huge amount of effort into reducing or eliminating seabird catch and that this hastily thought out proposal is not appropriate.

### *Effects on the fishery*

#### *Area closure*

48 All fishers contacted by phone were extremely concerned about the level of reported albatross catch. Most confirmed that they set their lines at night, which significantly reduces

seabird interactions. Most also confirmed that they have rarely enter the Kermadec area to fish, although some expressed concern at the potential closure because they had planned to fish there this season.

49 **Gisborne Fisheries Limited** is concerned about the area closure because they have a history of their larger vessels (2) operating in the Kermadec FMA at this time of year and their longstanding operation will be adversely affected because of the actions of one vessel.

50 **Robert Aitken** (Skipper: F.V. Stromboli –Gisborne Fisheries 1955 Ltd) is particularly concerned about the potential impacts that closing the Kermadec area will have on his operations as he has been fishing for tuna in this area for the last ten years.

51 **John Dyer** submits that he currently fishes inside the 200nm area but had planned to fish offshore or in the Kermadec area.

52 **Te Ohu** have considered the possibility of the problem being spatially related. They believe that setting surface longlines in an area where there is a high population of seabirds, such as besides one of the Islands in the Kermadecs, will increase the chances of seabird bycatch. This is especially true when no mitigation measures have been employed. However, as has been proven by the New Zealand flagged longline vessels, incidental bycatch can be overcome by setting lines at night, placing baits at deeper depths, using tori lines, and ensuring the correct gear is being used and in a proper manner.

53 **Salvatore Zame** notes that historically Gisborne Fisheries vessels have fished up in the Kermadec region and up until the introduction of HMS into the QMS these vessels were the only vessels in the domestic fleet that ventured into QMA10. During the time fishing in this region they have had minimal seabird interaction which can be proven by observer records.

54 **PFL** submit that closure of the Kermadec FMA would result in a socio-economic problem for fishers putting fisher out of business, loss of industry incomes, loss of jobs and loss of export dollars for the country.

#### *Night setting*

55 One fisher expressed concern that the requirement to only set longlines at night would seriously impact on his summer fishery for yellowfin tuna.

56 **TFL** strongly oppose the proposed prohibition on day time fishing. TFL submit that night setting is less productive and more dangerous than day setting and it also reduces the productivity of vessels by as much as 30-40%- a loss operators cannot sustain on current margins.

57 **John Dyer** submits that most NZ vessels generally fish at night so the night setting proposal would not adversely affect many people. However, he notes that some flexibility would be required in the hours of sundown off different coasts.

58 **Dale Coker** believes that MFish is condemning fishers because he won't be able to set in the daytime to catch tuna.

59 **E. W. Gartrell** submits that experienced fishermen would not accept that setting of hooks during the hours of darkness would eliminate the risk of seafood bycatch, because if it does not engage in proper practices, a vessel will catch birds at night as well.

60 The **TMA** submit that your proposal to restrict all surface longline fishing in the whole of the New Zealand EEZ to the hours of darkness is totally unworkable. For example after dark a vessel will take from three to five hours to set their lines. After a soak period of 2 to 4 hours they will begin to haul back taking from 7 to 14 hours depending on the vessel size and the total number of hooks set. This operation cannot be achieved within the hours of darkness.

61 **Te Ohu** question the accuracy and helpfulness of most of the information provided in the consultation document. For example, tuna longlines are not strictly set at night. They are set towards the end of the day. This is particularly relevant when considering making night setting mandatory, especially in the winter months.

62 **PFL** submit that without responsible practices seabirds will also be caught at night however setting at night is also more dangerous with a risk to human life.

### *Other Method Issues*

63 Two fishers noted that the use of 'J' hooks on the vessel was one important reason that so many birds were captured. They report that seabirds and other bycatch species are particularly susceptible to 'J' hooks; the domestic fleet use circle hooks which are far better for mitigating bycatch problems.

64 **Te Ohu** note that in its initial advice to you, MFish said that the lines were set at very shallow depths. We have to question whether this is an assumption on the part of the Ministry, whether it was intentional on the part of the skipper, or whether it was a consequence of the vessel speed and there being greater tension on the backbone as a result. Mixed with this issue of how shallow the lines were set is the Ministry's acknowledgement that baits would have descended below the diving depths of albatross had it not been for the captured seabirds remaining on the surface while attached to the hook. Clearly, this is in conflict with the suggestion the lines were being set too shallow.

65 In addition to the above, TE Ohu submit that it would also have been useful to know what gear was used by the vessel in question. Were circle or J hooks used? How many buoys were used? What size snoods were used? If answers to these questions were available it would have been easier to come up with corrective measures for the specific vessel. It might also have helped the Ministry develop a more informative and factual consultation document

### *Setting a precedent*

66 **Gisborne Fisheries Limited** and **TFL** expressed concern regarding setting a precedent for the use of emergency measures in other fisheries.

67 **Solander** also submit that the precedent set by invoking emergency measures under section 16 of the Fisheries act 1996 is both questionable and raises serious concerns as to the commercial imperative within the Ministry. Further, the concept that entire fishery will be closed down as a consequence of the actions of one operator – and with no redress – will undermine commercial confidence within the Industry.

### *Impacts on swordfish fishery value*

68 **TFL** strongly oppose the proposals and consider that it will significantly reduce the ability to catch swordfish allocation and devalue the fishery across the board with reduced port prices, increased catching costs flowing through to lower ACE and share values. The proposed restrictions

undermine the “economics” of the swordfish fishery.

69 **E. W. Gartrell** notes that his client has made a deliberate decision to invest in quota based on the potential of fishing in this area. His client most adamantly objects to the proposal and points out that fishing in New Zealand has become precarious financially because of a raft of regulatory constraints, some of which are considered excessive and that to now limit surface longlining to the hours of darkness and to close the Kermadec area to longlining is to further devalue the viability of fishing and to endanger jobs and investment in the industry.

### *Alternative measures*

70 **Oceanlaw** consider that given the small number of vessels involved in surface longlining for swordfish, there is no reason why voluntary measures, ultimately backed by regulation, could not be developed in short order.

71 **TFL** submit that a better approach is to target those vessels with excessive catches of seabirds. An improved code of practice should be implemented which includes harsh penalties for non-complying vessels and those with excessive bird strike rates. TFL looks forward to further discussions on this issue.

72 **Solander** submit that there should be an agreed Seabird Mitigation code of practice specifically for the domestic surface longline fisheries. Fishing permits, they believe, can be conditioned under section 92 of the Act to reflect this code of practice.

73 Rather than closing an area, **Te Ohu** submit that it would be more appropriate for swordfish quota owners and fishers to comply with the code of practice used by the wider longline fleet, and to use similar types of gear.

74 **AFL** agree with the recommendation that MFish work urgently with commercial fishers to devise effective measures to be implemented initially voluntarily, followed by implementations in due course through s11 of the Act.

75 It is **Sanford's** view that this issue could be more than adequately dealt with by the Chief Executive exercising his powers to condition permits under s.92. The conditions could be targeted at either fishing for swordfish or tuna longlining and the powers available are sufficiently robust to provide effective outcomes.

### *Consultation*

76 John Dyer submits that consultation with all fishers would have been good rather than just two days notice.

77 **Te Ohu** draw your attention to section 16(2) which requires the Minister to consult such persons or organisations ..... including Maori. In their view it is imperative for consultation to occur with Mandated and Recognised Iwi Organisations given the Treaty Settlement and the 20% interests held collectively by Iwi. Given the fact that Te Ohu only received the consultation document yesterday it is doubtful that any of the Iwi would have received the information at all.

## Appendix Two: Seafood Industry Council Submission



29 November 2006

Hon Jim Anderton  
Minister of Fisheries  
Parliament Buildings  
WELLINGTON

Dear Minister

### **Proposed emergency measures to manage the incidental catch of seabirds in surface longline fisheries**

1. SeaFIC shares your concerns about the high seabird bycatch reported from a longline vessel targeting swordfish in FMA10 (Kermadec). The industry does not condone fishing activity that appears to have been carried out in breach of fisheries regulations and well established industry codes of good practice. It is important that this issue is investigated further and that, if required, measures are implemented to ensure that incidents such as this are not repeated.
2. Because of the short timeframe provided for consultation on the proposed emergency measures, we have not been able to undertake extensive consultation with the industry in the preparation of this submission. We are aware, however, that the approach set out in this submission has the broad support of the industry.

### **Summary of SeaFIC's submission**

3. SeaFIC considers that the imposition of emergency measures under s16 of the Fisheries Act 1996 is inappropriate because the circumstances surrounding the bycatch incident do not trigger any of the statutory tests set out in s16(1). We believe that your initial view on emergency measures, as set out in your letter to stakeholders, was based on an unbalanced and flawed analysis of the situation provided to you by the Ministry of Fisheries.
4. If measures are to be adopted to ensure that the observed level of bycatch does not continue, then these measures should be targeted at the source of risk – i.e., in the first instance, the vessel operator concerned, and then, more broadly the method of surface longlining for the targeting of swordfish in FMA 10. It is completely unacceptable that the entire surface longline fleet should suffer regulatory restrictions as a result of the actions of one vessel, particularly when the domestic surface longline fleet has been successful in implementing mitigation approaches that have significantly reduced the level of incidental seabird catch in these fisheries.

5. Instead of imposing emergency measures, SeaFIC recommends that you (and the Ministry) should explore a number of options including the use of permit conditions relating to the targeting of swordfish in FMA 10, the development and implementation of voluntary mitigation measures, the use of regulatory measures if voluntary approaches prove to be ineffective, and enhanced observer coverage in FMA 10. We note in particular that voluntary measures can be set in place rapidly if this is considered to be necessary, and would be supported by enhanced observer coverage. If regulatory measures subsequently prove to be required, these can then be developed collaboratively between industry and the Ministry.

## Structure of submission

6. The first section of this submission sets out why we consider the imposition of emergency measures to be legally inappropriate. The second section outlines a number of alternative approaches to addressing the seabird bycatch issues associated with the swordfish fishery in FMA 10. The final section of our submission sets out a number of additional concerns that we have with the quality of the advice provided to you on this matter. In particular, we address concerns with the advice provided on s8 of the Fisheries Act with respect to adverse effects and societal values.

## Inappropriate use of emergency measures

7. SeaFIC understands that the emergency measures provided for in s16 have not previously been employed. The proposed use of emergency measures in this case would therefore set a precedent and deserves careful consideration.

## Criteria in section 16

8. Section 16(1) provides that you may only impose emergency measures if you are satisfied that there is or has been
  - (a) an outbreak of disease; or
  - (b) a serious decline in the abundance or reproductive potential of one or more stocks or species; or
  - (c) a significant adverse change in the aquatic environment.
9. According to the Ministry's advice paper, the relevant criterion in this case is 16(1)(c) – i.e., you must be satisfied that there is or has been a significant adverse change in the aquatic environment. Unlike the general requirement in the Act to avoid, remedy or mitigate adverse effects, this criterion refers more specifically to a “significant adverse change” in the aquatic environment. The definition of “effect” is very broad – for example, it encompasses past, present and future effects, cumulative effects which arise over time, and potential effects<sup>1</sup>. In contrast, a “significant adverse change” refers to an actual change (not a potential effect) that is both adverse in nature and significant in its impact. The word “change” also implies something that is observable or measurable. Furthermore, you must be satisfied that “there is or has been” a significant adverse change – it is not sufficient to speculate that, if a particular level of impact continues, there will at some stage in the future be a significant adverse change in the aquatic environment.
10. The Ministry's advice paper provides no justification for the conclusion that there *has been* a significant adverse change in the aquatic environment as a result of the observed capture of seabirds by the Seawin Emerald. To the contrary, the concern expressed in the advice paper

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<sup>1</sup> Fisheries Act 1996 section 2

appears to be that further incidents of this type could result in an adverse effect on the Antipodean albatross population (see for instance paragraphs 4 and 7 of the advice paper). In order to evaluate whether there has been a significant adverse change in the aquatic environment, the Ministry should instead have provided you with analysis and advice on:

- The status of the Antipodean albatross population;
- The impact of the observed bycatch incident on the Antipodean albatross population; and
- The relationship between a change in the albatross population and a change in the aquatic environment.

### Status of the Antipodean albatross

11. SeaFIC notes that although the Department of Conservation's Threat Classification System still recognises the Antipodean albatross (*Diomedea antipodensis*) and Gibson's albatross (*Diomedea gibsoni*) as separate species, this does not reflect current perspective of the Department of Conservation. The Department of Conservation played a central role in New Zealand's delegation to the second Meeting of the Parties which are signatories to the Agreement on the Conservation of Albatrosses and Petrels (ACAP). At this meeting (held in Christchurch from 13-17 November 2006) the New Zealand delegation tabled a document<sup>2</sup> which recorded that the "Taxonomy Working Group concluded that available data do not warrant the recognition of the Antipodean Albatross (*Diomedea antipodensis*) and Gibson's Albatross (*Diomedea gibsoni*) ... at the specific level" and that "following rules on taxonomic precedence, New Zealand proposes that Gibson's Albatross (*Diomedea gibsoni*) ... be removed from Annex 1 of the Agreement".
12. SeaFIC therefore concludes that Antipodean and Gibson's albatrosses must be considered a single species.
13. We note that the Department of Conservation's Threat Classification System considered Gibson's albatross to be "Range restricted" but "stable after previous decline", and the Antipodean albatross to be "Range restricted" and "recovering after previous decline".
14. The Ministry's advice paper notes (paragraph 3) that birds from both the Auckland Islands and Antipodean Islands populations were among those captured by the vessel. Both the Antipodes and Auckland Islands populations have been the subject of population studies carried out under the auspices of the Department of Conservation's Conservation Services Programme (CSP)<sup>3</sup>.
15. In terms of population size, these studies recorded for the Antipodes Island population over 5,100 pairs and a mature population of 17,000 birds, and for the Auckland Island population, over 6,000 pairs of birds.
16. In terms of population trends, for the population at Adams Island (in the Auckland Islands group) the study concluded that "although there is substantial inter-annual fluctuation in numbers attending the breeding grounds, the population is either *static or increasing slowly*"<sup>4</sup>. For the Antipodes Island population it was concluded that "the population is *growing* at about 3.5% per annum"<sup>5</sup> (emphasis added in both extracts).

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<sup>2</sup> MoP 2 Doc 30 "Proposal to Revise Taxonomy of Albatrosses listed in Annex 1 of ACAP"

<sup>3</sup> Draft reports of these studies were presented to the CSP Technical Working Group meeting held on 24 August 2005 (the final reports have apparently yet to be published).

<sup>4</sup> CSP POP2004/2

<sup>5</sup> CSP POP2004/3

17. SeaFIC concludes that there is no basis for the advice paper's suggestion (e.g. paragraph 4) that the Antipodean albatross is already in decline. (The advice paper specifically suggests that further bycatch events would cause "further population decline": the species is not in decline).

#### **Consequences of the observed bycatch**

18. The fishing trip considered in the advice paper captured 51 albatrosses. The capture of 51 albatrosses, from stable or increasing albatross populations with over 11,000 breeding pairs is not a significant adverse change in the Antipodean albatross population.
19. This clear conclusion is obscured and confounded by the poor quality of analysis and advice provided to you by the Ministry. For example:
- the advice paper indicates that "*it would take many years for this population to recover from one such 'event'*" (paragraph 4). Clearly the observed bycatch to date cannot be considered an event from which a population of over 11,000 breeding pairs would take many years to recover;
  - the advice paper states "*a vulnerable seabird cannot sustain this level of mortality*" (paragraph 10). This comment is in the context of the single reported incident, not of an extrapolated estimate of mortality based on the number of trips and likely average bycatch. Clearly a population of over 11,000 breeding pairs can withstand this level of mortality occasionally;
  - the DoC advice (paragraph 44) that "*should this level of bykill be repeated, the species will rapidly decline towards critical status*" is simply wrong. A further bycatch of 51 albatrosses would not have detectable population consequences. Only if such bycatch is sustained over a number of trips and over a significant period would DoC's fears be realised; and
  - the discussion in paragraph 14 of the advice paper confounds the adverse effect that MFish considers to have arisen from a consideration of societal values (paragraph 13), with a biologically adverse effect on the population. In fact, the single incident discussed is unlikely to have a detectable effect on population trend, and the effects of likely future bycatch can only be assessed when this is quantified.

#### **Other considerations regarding emergency measures**

20. From the above analysis of the status of the Antipodean albatross population and the consequences of the observed bycatch event, SeaFIC concludes that there has not been a significant adverse change in the Antipodean albatross population.
21. We note that even if you did decide that there had been a significant adverse change in the Antipodean albatross population, that is a different conclusion from being satisfied in relation to the much broader test of "a significant change in the aquatic environment". A precise legal interpretation of s16(1)(c) is difficult in the absence of case law, but we note that:
- i) The Antipodean albatross population is just one component of the aquatic environment. It would be difficult to justify a conclusion that a change in an albatross population changed the entire aquatic environment in a significant way;
  - ii) It is also possible to interpret s16(1)(c) as referring to a significant adverse change in the aquatic environment itself (which is defined as the natural and biological resources comprising any aquatic ecosystem<sup>6</sup>) – for instance an oil spill or a turbidity event that might in turn result in a change in a population of seabirds.

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<sup>6</sup> Aquatic ecosystem is further defined as "any system of interacting aquatic life within its natural and physical environment"

22. We note that the Ministry's advice paper provides you with no analysis on this point, other than at paragraph 24 (erroneously) directly equating the aquatic environment with seabirds as if they were one and the same.
23. SeaFIC also notes that the advice paper should have covered the possibility that emergency measures might be imposed under s16(1)(b) – i.e., *a serious decline in the abundance or reproductive potential of one or more stocks or species* (the species in this case being Antipodean albatross). The points made earlier in this submission regarding the status of the population and the consequences of the observed bycatch event would apply equally if emergency measures were being considered under this criterion.
24. Finally, we note that, if emergency measures were to be imposed, the industry would expect a clear explanation as to why you were satisfied that the statutory criteria for the imposition of these measures had been met. Neither your letter to stakeholders nor the Ministry's advice paper provides this explanation.

### **Alternatives to emergency measures**

25. SeaFIC is disappointed that, in the period since the Ministry became aware of the seabird bycatch problem on this trip, no approach to industry has been made to discuss the problem and various regulatory or voluntary options which might be used to address it. Instead, an immediate preference for emergency measures is apparent. Although the Ministry's advice paper purports to present two options for short term action, the paper is clearly weighted towards Option One, the Implementation of Emergency Measures. We note that this weighting extended to the provision of a decision letter and press release for Option One only.

### **Targeting measures to sources of risk**

26. A particularly disappointing aspect of the proposed emergency measures is that they are directed at the entire surface longline fleet, throughout the EEZ, yet the incident that has provoked this reaction is extremely specific – i.e., it relates to the targeting of swordfish by a single vessel operating in FMA 10. The broad application of the proposed measures (regardless of whether they are implemented through emergency measures or other means) is not supported by any analysis in the advice paper – in fact the analysis in the advice paper seems to support a far more targeted set of management responses. For instance:
  - The Ministry suggests that the NZ tuna-target surface longline fishery is effectively mitigating the risk of seabird captures in its fishing operations, yet the measures proposed directly affect this fishery;
  - The analysis in the advice paper suggests the problem is stock specific and related to one particular implementation of the surface longline method, yet the measures proposed affect all surface longline fisheries;
  - There are indications of a local, area-specific, bycatch problem, but the measures proposed affect the whole of FMA 10 (closure to surface longlining) and the entire EEZ (restriction to night setting);
  - The advice paper highlights a clear problem with a particular vessel but proposes measures that will affect not just the wider swordfish fleet, but the entire New Zealand tuna fleet.
27. SeaFIC considers that it is completely inappropriate to impose measures on an entire fishing fleet when there are options available to target the measures at the specific source of risk.

## Measures relating to the vessel concerned

28. In the first instance, we consider that, if regulations have been breached, action should be taken directly against the vessel operator concerned. Notwithstanding the statement in the advice paper that “*possible illegal activities ... are not relevant to the current advice and recommendations*” (paragraph 11), the Ministry’s advice indicates that both the observed bycatch incident, and much of the future risk of further such incidents, arises from the failure of a single operator to comply with both “existing rules and regulations” (paragraph 40), and good “seabird friendly” fishing practice (paragraph 5). SeaFIC agrees that this is unacceptable. Any failure to deploy mitigation measures correctly (implied in paragraph 5) would appear to be a breach of Regulation 58 the Fisheries (Commercial Fishing) Regulations 2001. Likewise the DoC advice (paragraph 44) indicates that the vessel may have illegally obstructed the observer from carrying out his/her duties.
29. SeaFIC supports the investigation of potential breaches of Fisheries Regulations and prosecution where evidence indicates that offences may have been committed.

## Measures relating to the targeting of swordfish in FMA 10

30. SeaFIC considers that it is appropriate to examine a range of options for addressing any risk to seabird populations generated by vessels fishing in similar circumstances to the Seawin Emerald – i.e., surface longline targeting of swordfish in FMA 10. There are several approaches that could be explored, including:
  - Permit conditions;
  - Voluntary measures;
  - Regulatory measures; and
  - Observer coverage.

### *(a) Permit conditions*

31. First, if immediate action is considered to be necessary, the Chief Executive of the Ministry of Fisheries has available to him a range of powers under s92 of the Fisheries Act to place conditions on permits. These conditions can apply to particular stocks, areas or methods – for instance conditions could apply to the targeting of SWO in FMA 10. Conditions could also be expanded to cover any risk associated with uncertainty around whether a particular vessel was targeting SWO or tuna species. Permit conditions have advantages such as:
  - They can be applied more or less immediately and can be targeted at specific sources of risk;
  - They need not be permanent, but can provide an immediate solution while longer term measures are worked through.

### *(b) Voluntary measures*

32. Alternatively, given the relatively small number of vessel operators in the swordfish fishery, you could direct the Ministry to engage directly with the fishers and quota owners concerned to develop effective voluntary mitigation measures, along the lines of the measures that have already been successfully adopted in the domestic tuna surface longline fishery.
33. Voluntary measures can be implemented quickly, and observer coverage can be used to determine whether measures are being complied with.

### *(c) Regulatory measures under section 11*

34. SeaFIC emphasises that, as a general principle, regulation should be used only where absolutely necessary and where stakeholder solutions cannot be implemented effectively. We note, however,

that Option Two in the advice paper assumes that voluntary mitigation measures would at some stage need to be regulated under section 11 of the Act. This conclusion is premature. There is already a regulatory requirement to implement tori lines in the surface longline fishery. There is also a successful record of the development and implementation of voluntary mitigation measures in the domestic tuna surface longline fishery. The need for any additional regulation is more appropriately considered jointly between the industry and the Ministry once voluntary measures are in place and their effectiveness monitored.

*(d) Observer coverage*

35. SeaFIC supports the increased observer coverage of surface longline vessels in FMA 10 to:
- better determine the extent of seabird bycatch in this fishery; and
  - monitor compliance with mitigation measures including industry codes of practice.

## No justification for any measures applying to entire surface longline fleet or entire EEZ

36. Given the range of options for dealing with the particular source of risk (targeting SWO in FMA 10), SeaFIC considers that there is no justification for any sort of measures that might apply to the entire surface longline fleet. We also note that the Ministry's advice paper understates the measures' impact on tuna fisheries in FMA 10.
37. The proposed measures will exclude all surface longlining in FMA 10, and regulate the practice of all surface longlining in the remainder of the EEZ. The advice paper (paragraph 5) notes that the high bycatch on the reported trip arose specifically as a result of:
- shallow set longlines;
  - daylight setting; and
  - an absence of mitigation measures.
38. In contrast, it is recognised (paragraph 8) that this is a new fishing technique in New Zealand waters, and that the deeper setting depth and night setting practices by the New Zealand tuna longline fleet "*effectively reduces the risks of seabird interactions*". Regulation 58 of the Fisheries (Commercial Fishing) Regulations 2001 require commercial fishers taking tuna by using longlines to carry and use a seabird scaring device in accordance with specifications issued by the Chief Executive. The advice paper (paragraph 37) recognises that tori lines are an effective seabird bycatch mitigation technique in the domestic tuna fishery and that in the domestic tuna fishery "*many vessels also operate under strict codes of practice and are committed to continually decreasing bycatch levels*". The specific conditions relating to the observed high bycatch therefore do not apply in the domestic tuna fishery.
39. We also note that there is little justification for the application of measures across a broad spatial scale, as there are indications that this may be a relatively localised risk. Annexes one and two are missing from the copies of the Ministry's advice paper available to SeaFIC. However, the paper indicates that the bycatch problem identified may be very localised (paragraph 9). It notes that on a previous trip in FMA 10 a Ministry of Fisheries observer recorded no seabird bycatch by this vessel. Given the available information SeaFIC does not consider that closure of the entire FMA 10 to surface longlining is justified.
40. It is concerning that despite the possibility that bycatch may be a localised problem in this fishery, the advice paper (paragraph 28) considers that EEZ wide measures are the only possibility for managing the risk of seabird captures. We note that New Zealand longline fishers already avoid particular areas (and periods) where the risk to seabirds is considered to be high despite current good practice. This suggests that FMA or EEZ wide measures may not be required.

### *Effect of emergency measures on tuna fisheries*

41. SeaFIC believes that the advice paper (paragraph 27) may understate the significance of the closure of FMA 10 to the wider tuna longline fishery. New Zealand's annual report to the Western and Central Pacific Fisheries Commission<sup>7</sup> indicates that catches of bigeye, yellowfin, and, to a lesser extent, albacore tunas were widespread in FMA 10 in the period 2001 – 2004. Although catches in 2005 were considerably less extensive in FMA 10, this may be partially attributable to the contraction in the New Zealand domestic longline fleet with TACCs substantially undercaught in recent years.

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<sup>7</sup> [http://www.wcpfc.int/sc2/pdf/SC2\\_CR\\_NewZealand.pdf](http://www.wcpfc.int/sc2/pdf/SC2_CR_NewZealand.pdf), 7 July 2006, Figure 2

42. The Ministry's advice paper notes that only 0.7% of tuna longline catch in 2005/06 was reported in the first half of the fishing year. However, this does not take account of species specific differences in spatial effort. Fishers have indicated that FMA 10 is an important area for the bigeye fishery at this time of year.

### **Other concerns with the Ministry's advice paper**

43. In this section of the submission we discuss a number of additional concerns with the quality of the analysis presented in the Ministry's advice paper, including:
- Relevance of section 8 of the Act;
  - Interpretation of section 8 of the Act with respect to adverse effects and "societal values"; and
  - Confused reporting of the circumstances surrounding the bycatch incident.

### **Relevance of section 8 of the Act**

44. The Ministry has provided you with various options for short term action which are discussed in a general way in paragraphs 12-18 of the advice paper. The discussion begins with a consideration of the general requirement in s8 of the Act to avoid, remedy or mitigate any adverse effects of fishing on the aquatic environment, but then does on to discuss emergency measures. SeaFIC notes that while the purpose of the Act (and the specific obligation to avoid, remedy or mitigate adverse effects) is generally relevant to whether any management intervention is required, the considerations set out in the Ministry's discussion in these paragraphs are not, in themselves directly relevant to the question of whether you are able to impose emergency measures. For example, matters such as past, present or future effects of fishing, or societal values associated with species are not in themselves sufficient to enable the imposition of emergency measures. If the specific requirements of s16 cannot be met, then emergency measures cannot be imposed, regardless of these broader considerations.

### **Adverse effects and societal values**

45. The Ministry has advised you that, when determining whether an impact is adverse, you can take into account "*societal values associated with the species being impacted*" (paragraphs 12 and 13). This advice implies that you can require a higher level of performance in this fishery than contemplated in s9 of the Act (environmental principles), in order to reflect "societal values".
46. SeaFIC considers that setting higher levels of performance than those needed for "sustainability reasons" is not consistent with the scheme and purpose of the Fisheries Act. We agree that the concept of societal values is incorporated into the purpose of the Act, but only through the definition of "*utilisation*". That term incorporates the concepts of conserving and using fisheries resources in such a way as provides for social well-being. However, in the advice paper, the Ministry appears to be implying that while the Act sets some minimum level of protection for albatrosses based on "*the biological impact of the fishing activity on the species and/or the ecosystem*", it does not prevent a higher level of protection to be set if some wider societal value suggests that is appropriate.
47. In our opinion it is wrong to suggest that "societal values" forms a separate head for consideration, beyond a consideration of "sustainability" or whatever particular level of control is mandated in a particular section of the Act. The Act sets the environmental standards required. Generally, this is to ensure sustainability, although some sections have a

more specific test (such as the s16 test for a significant adverse change in the aquatic environment). While you clearly have considerable discretion to decide what level of control is needed to ensure sustainability, having done so, we believe that you can not further restrict utilisation for some wider societal reason.

48. We believe that the discussion in paragraphs 12 to 18 of the Ministry's advice paper confuses a "biological" interpretation of the adverse effects of fishing with a more political interpretation based on societal values. A "biological" interpretation would make it clear that the Fisheries Act anticipates and provides for a level of effects of fishing on the aquatic environment. These effects are lawful unless they are identified as being "adverse". The requirement to avoid, remedy or mitigate adverse effects of fishing on the aquatic environment is not about avoiding every isolated incident of non-target bycatch. Rather, adverse effects must be identified in terms of overall consideration of the range and occurrence of the particular species. Matters of spatial and temporal scale are extremely important in identifying whether an effect is "adverse".
49. However, the advice paper makes statements such as "the status of the species of albatross caught by this vessel means that there has been an *adverse effect* on the population..." (paragraph 14). While the removal of 51 individuals could well be seen as having an impact on the albatross population, there has been no *adverse effect* in the sense intended in the Fisheries Act (and neither does the Ministry seek to explain why it believes there has been an *adverse effect* as opposed to an impact).
50. In order to determine whether there would indeed be an adverse effect on the Antipodean albatross population arising from the swordfish fishery under various management scenarios, further analysis would need to be undertaken. The advice paper makes no attempt to do this.

#### **Circumstances surrounding the observed incident**

51. SeaFIC considers that the description of the circumstances surrounding the observed incident on the Seawin Emerald are not clearly described in the advice paper (paragraphs 5 to 8). This makes it difficult to assess the sources of risk to seabirds and develop appropriate management responses. At the very least, we would have expected to see information on:
  - Whether the birds were caught in a single set or over a period of time;
  - Whether the vessel moved away from the area in which birds were caught;
  - Whether the captures occurred during setting, soaking or hauling;
  - How deep the gear was set; and
  - Which, if any mitigation practices were in place and whether they were being deployed correctly.
52. Although the depth at which the longlines were set is not provided in the advice paper, there is clearly a concern over issues associated with depth. However, the lack of detail in this part of the paper leaves various potential management approaches unexplored. For instance it is suggested in paragraph 5 that:
  - lines were set at a sufficiently shallow depth that baits were accessible to seabirds throughout the entire duration of the set. If that is the case then it is not clear why a restriction on the minimum depth of surface longline fishing is not proposed;
  - the shallow target fishing depth may influence the sink rate of the line and baited hooks. It is not clear why line sink rate and target fishing depth are considered to be correlated. SeaFIC suggests that line sink rates can be managed independently of target fishing depth; and

- tori lines, as required by regulation for commercial fishers taking tuna, may not be an adequate mitigation measure for shallow set longlines targeting swordfish. We note that this advice is not in line with international information on mitigation practices in swordfish longline fisheries<sup>8</sup>.
53. We further note that your press release of 28 November 2006 records that 17 of the captured albatrosses were released alive. The advice paper does not discuss this further. However, the release of live seabirds captured on a longline suggests that these birds may have been captured during line hauling rather than line setting. However, the proposed measures relating to night setting specifically aim to mitigate the risk of captures while lines are being set, not when lines are hauled.
  54. Some other press statements have indicated that the captures did, in fact, all occur during setting. If this is the case then it may indicate that the depth of fishing, rather than simply the setting process, might have to be addressed to effectively mitigate the risk of further seabird captures.
  55. In either case, it is not helpful that the advice paper does not describe the circumstances surrounding the captures clearly. SeaFIC suggests that the nature of the problem needs to be clarified before mitigation measures are imposed.

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<sup>8</sup> For example, Birdlife International's report to the IOTC Bycatch Working Party "Seabird bycatch in swordfish longline fisheries worldwide" (IOTC-2006-WPBy-138) records "In the US, the use of a tori line on swordfish vessels was found to reduce seabird bycatch by 80% (McNamara et al 1999). Data from South Africa indicate that over 90% of seabird bycatch on observed swordfish vessels was on vessels that were not using tori lines (Petersen 2006)."

## Clarification

56. In making this submission, SeaFIC has assumed that the restriction on “*surface longlining in the whole of the New Zealand EEZ to the hours of darkness*” described on page 2 of your letter to stakeholders refers to longline setting only (i.e. deploying the line from the vessel), not other parts of the surface longlining process. Given the accompanying advice paper, this appears to be the correct interpretation, but if this is not the case, SeaFIC would wish to make a further submission.
57. Given the significant issues and additional information raised in this submission, we would appreciate an opportunity to discuss these matters with you directly. Please let us know if that would be of assistance to you in your consideration of the proposed measures.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Nici Gibbs', followed by a period.

Nici Gibbs  
Policy Manager

## Appendix Four: Albatross Information

78 During a single trip, the *Seawin Emerald* caught 58 seabirds including 7 petrels and 51 albatrosses. Identification of all of the albatross caught has not been possible because the crew did not bring some of them on board. Photographs taken by the observer on board the *Seawin Emerald* show that four of the albatross that were landed and released are the endemic Antipodean albatross (*Diomedea antipodensis*)<sup>9</sup>. These included juvenile and adult birds from the Auckland Islands and Antipodes Islands populations which comprise over 95% the global population of this species.

79 It was assumed that the other large albatrosses reported by the observer, but for which carcasses were not retained, were also Antipodean albatrosses. Other species, that are likely to be confused with Antipodean albatrosses, such as Royal Albatrosses, occur only rarely in the area where these birds were caught.

### Threat status

80 The IUCN list the Antipodean albatross as threatened with extinction under the category Vulnerable, and under the Department of Conservation threat classification system the two populations are considered separately and both are listed as threatened, Range Restricted<sup>10</sup>. The Department of Conservation has not revised the threat classification for the taxa since the taxonomic revisions for the species were accepted in November 2006, which combine the two population-level taxa into one species. It should be borne in mind that this classification may change in response to the revised taxonomy for the species, but the likelihood of this is unknown.

81 The Antipodes Islands population has around 5800 breeding pairs annually and is increasing in numbers, while the Auckland Islands population has around 5100 breeding pairs annually, and the trend for this population is stable<sup>11</sup>. Both of these populations experienced decreases in numbers during the period up to the mid 1990s, attributed to mortality in longline fisheries. The two main populations are therefore in a period of recovery or stasis following declines.

82 A key concern is whether the events recorded recently in the fishery for swordfish are sufficient to affect the long-term viability of the Antipodean albatross. In 2005, Technical Working Group of the National Plan of Action - Seabirds<sup>12</sup> (NPOA TWG) identified a number of indicators of long term viability for seabird species, such as the numbers of individuals in species populations; species population trend; number of sites occupied; spatial extent of sites occupied; adult survival rates; juvenile survival rates; recruitment rates; reproductive outputs; population age and sex structure. In the same document, the NPOA TWG considered that "In the absence of more precise information on indicators of long term viability including those described above, [Department of Conservation] threat status<sup>13</sup> be used as a measure of long-term viability of species." They defined

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<sup>9</sup> There is scientific debate as to whether Antipodean albatross (*Diomedea antipodensis*) is actually a single species with two populations (the international and IUCN perspective), or two species (the Department of Conservation perspective): Antipodean albatross (*Diomedea antipodensis*) restricted to the Antipodes Islands and Gibson's albatross (*Diomedea gibsoni*) restricted to the Auckland Islands. At the Meeting of Parties of the Agreement for the Conservation of Albatrosses and Petrels (13-17 November, 2006), New Zealand has adopted the global taxonomy.

<sup>10</sup> Hitchmough 2002. New Zealand Threat Classification System lists 2002. Threatened Species Occasional Publication 23. Department of Conservation, Wellington

<sup>11</sup> Elliot and Walker 1995. Detecting population trends of Gibson's and Antipodean wandering albatrosses. *Notornis* 52: 215-222.

<sup>12</sup> National Plan of Action Seabirds Research Plan 2005. Department of Conservation and Ministry of Fisheries, pg 13.

<sup>13</sup> Molloy et al.2002. Classifying species according to threat of extinction. A system for New Zealand. Threatened Species Occasional Publication 22. Department of Conservation, Wellington

the management response to threats, depending on the current threat status for taxa<sup>14</sup>:

*“For seabird species classified as Acutely Threatened (Nationally Critical, Nationally Endangered, Nationally Vulnerable) or Chronically Threatened (Serious Decline, Gradual Decline) the requirement is to reduce the severity of the species threat status and to seek attainment of non-threatened status as soon as biologically possible.*

*For seabird species classified as At Risk (Range Restricted, Sparse), and seabird species currently classified as not threatened, the requirement is to ensure that there is no increase in the severity of threat status of the species and over a 10 year period, no statistically significant decline in species population numbers occur”.*

83 Noting that both populations of the Antipodean albatross are currently rated as Range Restricted, according to Department of Conservation definitions, an increase in the severity of the threat status for Antipodean albatross would constitute a threat to long-term viability for the species, as would a statistically significant decline in species population numbers over 10 years. The IUCN assessment for Antipodean Albatross is consistent with this, noting that if continuing rapid decline of Antipodean albatross is reported, the threat status is likely to be upgraded to Endangered or Critically Endangered. Given the high protection status of the breeding sites<sup>15</sup>, it is unlikely that land-based threats to the populations would result in an increase in the threat status for either population or the species as a whole. Marine-based threats (e.g. marine pollution, fisheries mortality) therefore constitute the most likely cause of pressure on the populations. Marine pollution events are not predictable in time or place, or likely to occur with a high probability, while mortality of Antipodean albatrosses has been observed since the early 1990s, and at high levels in some years when observer coverage of the whole fleet was highest. One can therefore conclude that fisheries mortality is the single most likely cause of risk to the species. High catch incidents of this species, such as that observed on the *Seawin Emerald* significantly increase the risk that the species numbers will decline in the short to medium term, leading to threats to its population viability.

### **Vulnerability to adverse effects of fishing to population viability of the species**

84 The number of Antipodean albatross that were taken in a single fishing trip is of considerable concern and there is a risk that this incident and any further incidents could impact adversely on the stability and recovery of the populations, which are already classified as threatened with extinction.

85 The greater albatross group to which Antipodean albatross belong are particularly susceptible to population changes as a result of fisheries-related mortality as they have very low productivity as they raise a maximum of one chick every two years and generally do not breed until over 10 years of age. Decreases in adult survival of 1%, as a result of fisheries-related mortality, have led to rapid population declines in closely-related Wandering and Antipodean albatross species in the Indian and Atlantic Oceans<sup>16,17</sup>. For Antipodean albatrosses, around 100 individuals killed additionally, from either one or the other of the main breeding populations would lead to a

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<sup>14</sup>National Plan of Action Seabirds Research Plan 2005. Department of Conservation and Ministry of Fisheries, pg 13.

<sup>15</sup> National Nature Reserves, Reserves Act 1977. Both islands are classified as Low Impact sites with very low levels of visitation allowed for research and management purposes only.

<sup>16</sup> Croxall et al. 1990. Reproductive performance, recruitment and survival of Wandering Albatrosses *Diomedea exulans* at Bird Island, South Georgia. *Journal of Animal Ecology* 59:775-796.

<sup>17</sup> Weimerskirch et al. (1997). Population dynamics of wandering albatrosses *Diomedea exulans* and Amsterdam albatross *D. amsterdamensis* in the Indian Ocean and their relationship with longline fisheries: conservation implications. *Biological Conservation* 79:257-270

roughly 1% increase in adult mortality for individuals for the demi-populations of around 5000 pairs that breed each year at each of two main sites.

86 A preliminary draft report to MFish indicates that 50 and 60 adult Antipodean wandering albatrosses from the Antipodes and Auckland Islands, respectively could be removed annually before the population growth or recovery would be adversely affected<sup>18</sup>. These recent captures have killed a considerable portion of that number of birds in a single fishing trip. This modeling uses a Potential Biological Removals<sup>19</sup> (PBR) approach (as previously used to set Fisheries Related Mortality Limits for sealions), adapted to seabirds. The report does not discuss how many individuals would need to be removed to result in a serious decline for the species. This preliminary report has not been subject to review by technical working groups and is likely to be contentious. This information should therefore be treated with extreme caution when being used as a basis for management decision-making. More sophisticated modeling work is due to be completed in mid December 2006 for this species, using long-term data on tagged individuals and exploring the response of the populations to fishing pressure<sup>20</sup>.

87 The Antipodean albatross has a breeding cycle that lasts for more than a year in which adult birds feed throughout the New Zealand EEZ while making frequent visits to their nests in the Sub-Antarctic zone. These breeding birds are distributed throughout New Zealand fisheries waters during the year and forage by preference over sea-mounts and outer shelf areas. Birds that are feeding chicks at the nest in the Auckland and Antipodes Islands feed as far a field as west of Tasmania and the Mid Pacific Ocean<sup>21</sup>. Outside the breeding season, and for pre-breeding individuals, their ranges extend to South American waters and into the Indian Ocean, where they are likely to experience fisheries mortality in adjacent countries EEZs or on the high seas. Measures put in place should take account of the very wide-ranging nature of this species, and that displacing fishing effort from one Fishery Management Area to another is likely to move the bycatch problem rather than solve it.

88 It should be noted that mortality of one adult also results in the death of any chick at the nest and to reduced productivity for the remaining mate over several years while it re-establishes pair-bonds with a new mate.

89 Detecting population changes in the Antipodean albatross requires long-term monitoring and is most effectively done by following the fates in individually-marked birds over several years<sup>22</sup>. This is because the species breeds biennially, with only a proportion of individuals visit the breeding site each year, and some birds may be absent from breeding areas for several years in a row due to normal population processes. For this reason, measuring the effect of fisheries mortality, even if it is having a dramatic effect on population size, takes several years to complete with any degree of certainty.

90 The distribution and feeding ecology of Antipodean albatross makes them vulnerable to longline fishing, especially when fishing is undertaken during the daylight when these birds

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<sup>18</sup> Dillingham and Fletcher. Unpublished draft report to the Ministry of Fisheries. Estimating the ability of New Zealand seabirds to sustain bycatch-related mortalities.

<sup>19</sup> Wade 1998. Calculating limits to the allowable human-caused mortality of cetaceans and pinnipeds. *Marine Mammal Science* 17:1-37.

<sup>20</sup> Project ENV2004-05. Modelling of the effects of fishing on selected seabird species in New Zealand fisheries.

<sup>21</sup> Walker and Elliott 2006. At-sea distribution of Gibson's and Antipodean Wandering Albatrosses and relationships with longline fisheries. *Notornis* 53:265-290.

<sup>22</sup> Elliott and Walker 1995. Detecting population changes of Gibson's and Antipodean Wandering Albatrosses. *Notornis* 52: 215-222.

actively forage. Although they forage at shallow depths (<10 m) they can be caught when baits stay at the surface for long periods or are brought to the surface by smaller, more proficiently diving petrel species. Birds are also known to be caught during the haul in surface longline operations. Reducing the availability of lines in the top 50-60 m of water, the depths that petrels and albatrosses can forage to, has been shown to be effective at reducing bycatch.

91 Greater albatrosses feed most actively during dawn, dusk and daytime, hence their vulnerability to capture is at these times<sup>23</sup>. Any measures implemented to reduce the risk of capture should therefore take account of peak vulnerability periods during twilight and daylight hours.

92 The nature of the Antipodean albatross makes the populations particularly susceptible to decrease from fisheries mortality, due to the very low productivity, extended breeding period, widespread distribution, spatially restricted nature of breeding populations, previous decreases due to fishing mortality and the particularities of their feeding behaviour. Further, detection of even quite major fisheries impacts takes several years.

### Magnitude of the capture event

93 Captures of Antipodean albatross were commonly observed in surface longline tuna fisheries in eastern New Zealand waters prior to 1998 (Table 1). The greatest historical level of observed bycatch of Antipodean albatross occurred in 1996/97 when 62 individuals were killed. However, it should be noted that observed kills reported here are much lower than total kills due to low levels of observer coverage which have ranged from 2.7 – 27.1% of surface longline effort. Total kills are not able to be extrapolated for single species as the observer coverage was either non-representative or too low to allow this to be done robustly.

94 The capture events on the *Seawin Emerald* alone represent a number close to the total observed captures in 1996/97 and far exceed the total number of observed kills since 1998/99. It should be noted that the more recent apparent declines in observed kills are probably a result of improved mitigation (such as night setting and tori-line deployment), very low observer coverage in the Domestic Tuna fishery, and a redistribution of fishing effort away from high risk areas.

**Table 1. Captures of Antipodean Wandering Albatrosses observed in longline fisheries for tunas in the NZEEZ. Source: MFish unpublished data, extract of observer data and confirmed identifications from autopsy of animals from L\_line database. N.a = data not available at this time.**

	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	Total
Antipodes Island population	0	0	7	0	0	0	52	32	2	3	0	1	2	0	0	0	99
Adams Island population	10	1	7	2	2	0	10	19	1	4	0	0	5	0	0	1	62
Total observed captures of Antipodean Albatross	10	1	14	2	2	0	62	51	3	7	0	1	7	0	0	1	151
Observer coverage levels, % hooks set (domestic fleet)	0.0	3.6	0.0	0.1	2.4	6.3	3.8	2.5	0.7	0.5	2.7	1.5	0.0	2.2	4.9	n.a	

<sup>23</sup> Waugh and Weimerskirch 2003. Environmental heterogeneity and the evolution of foraging behaviour in long-ranging greater albatrosses. *Oikos* 103:374-384.

Observer coverage levels, % hooks set (Japanese Joint-Venture fleet)	2.8	4.9	17.7	39.4	50.0	0.0	60.8	83.6	71.0	57.5	86.8	78.8	85.7	90.8	88.1	n.a	
Total observer coverage, % hooks set.	2.7	4.8	15.2	19.8	20.2	5.9	27.1	26.5	16.0	8.4	10.8	8.4	17.4	19.9	19.1	n.a.	

## Summary

95 In summary, Antipodean albatrosses by their nature are highly vulnerable to population change as a result of fisheries mortality. Their foraging ecology and distribution makes them susceptible to mortality in surface longline fisheries, such as that for swordfish and tunas. Assessments of threat status for the species by the Department of Conservation and IUCN indicate that a more severe threat status would likely be accorded if rapid population declines were noted, which would indicate a threat to the population viability. It is unknown at this point exactly how many individuals would need to be removed from the Antipodean albatross populations before rapid decline would occur, but ongoing captures of large numbers of adult birds are likely to result in declines over the short to medium future. The nature of the populations is such that measuring such a decline is likely to take some years, even if events to cause the decline occurred in the immediate future. The high number of Antipodean albatrosses captured in this single event is close to, or equivalent to the total observed for the entire tuna fleet during a single year in the mid 1990s. Therefore, the Seawin Emerald event represents a serious incident, further such events could have negative impacts on this vulnerable seabird species.