



deepwater  
group

COMMITTED TO  
**SUSTAINABLE OCEANS  
SUSTAINABLE FISHERIES**

25 February 2014

Deepwater Fisheries Management  
Ministry for Primary Industries  
PO Box 2526  
Wellington 6011

To James Stevenson-Wallace,

### **Submission: Review of Sustainability Measures for Southern Blue Whiting**

Deepwater Group Ltd (DWG) appreciates the opportunity to make a submission on the *2014 Review of Sustainability Control for Southern Blue Whiting*.

DWG is mandated by SBW6I quota owners to make this submission to MPI on their behalf (89% of SBW6I quota is owned by Shareholders of DWG).

### **Background**

In addition to advising the Ministry for Primary Industries (MPI) of DWG Shareholders' positions with respect to southern blue whiting, DWG would like to take this opportunity to iterate our commitment to the sustainable utilisation of New Zealand's deepwater fisheries, and our partnership with the Ministry.

DWG was formed in November 2005, to represent participants in New Zealand's major deepwater fisheries, including those for squid, hoki, hake, orange roughy, oreo and southern blue whiting.

DWG's vision is for these fisheries to be recognised as the best managed deepwater fisheries in the world. To realise this vision, DWG undertakes a number of activities, including:

- Representing the interests of quota holders with Government and government departments;
- Undertaking fisheries research and stock assessment programs;
- Implementing and monitoring fisheries management programs;
- Working on multiple fronts to manage and minimise any adverse environmental affects;
- Ensuring integrity at all levels of process and engagement; and
- Maintaining fisheries management standards that meet or exceed those required for MSC Certification.

One of the mechanisms by which DWG's vision is being realised is through our structured collaborative partnership with the MPI. Benefits of this partnership include:

- Incorporating commercial expertise and operational knowhow with government resources;
- Ensuring Industry support and commitment to management approaches through the processes of consultation, engagement and co-operation;
- Enabling MPI to base decisions on consistent and agreed advice from the Industry, as well as set clear and agreed objectives for deepwater fisheries, implementing and supporting management measures to support these objectives, and assurances that these objectives will be efficiently delivered.

The culture of collaboration goes both ways. Not only does DWG actively support MPI's measures that are founded on the collaborative relationship, MPI also actively provides support to DWG for the effective implementation and monitoring of non-regulatory management initiatives.

### Proposed Sustainability Measures for Southern Blue Whiting, SBW6I

DWG has considered and supports the situation analysis, the proposals and the rationale in MPI's Initial Position Paper (IPP):

- The updated stock assessment has been accepted by the Deepwater Fisheries Assessment Working Group (DFAWG)
- The acoustic estimates have been improved over those reported in 2013,
- The stock status of SBW6I is estimated to be 58%  $B_0$ ,
- The current biomass and the five year projections are strongly driven by the very large 2006 and 2009 year classes,
- Large year classes have been observed to grow more slowly and the individual fish reach smaller maximum sizes than small year classes,
- Modelling these lower growth parameters reduces the biomass in future projections.

In the IPP, MPI proposes the following TAC and TACC options for the 2014-15 fishing year for SBW6I:

Option	TAC (t)	TACC (t)
Option 1: (Status Quo)	30,000	29,400
Option 2:	35,000	34,300
Option 3:	40,000	39,200

DWG advises that there is unanimous support from Shareholders who own\ SBW6I quota for Option 3, an increase in the TACC from 29,400 to 39,200 t, with the following provisos that DWG and MPI:

- Implement an effect mitigation plan to minimise the incidental interactions with New Zealand sea lions,
- Undertake an update of the previous Management Strategy Evaluation (MSE),
- Use the MSE results to determine the timing of the next biomass survey, as quota owners were keen to see the possibility of the next survey being delayed beyond the current plan of 2015, if possible,
- Review the Harvest Strategy and Management Target for this stock,
- Include the results of the above work in the Fishery Plan for SBW6I.
- Based on the results from the above, review management measures for SBW6I prior to 2015-16.

### **Sea Lion Exclusion Devices in SBW6I**

SBW6I quota owners remain committed to reducing the incidental interactions with sea lions to as close to zero as is achievable.

To give effect to this, quota owners have agreed to continue to work closely with MPI to implement Operational Procedures with the following proposed components for 2014-15:

- Deployment of Sea Lion Exclusion Devices (SLEDs) in SBW6I fishery during the 2014 season,
- Full independent observer coverage,
- Real-time monitoring of events to enable real-time in season management responses by MPI and DWG as may be required, and as implemented during the 2013 season, and
- Review the outcomes at the end of the 2014 season.

In addition, DWG has contracted NIWA to undertake an assessment of the PBR level for sea lions from the Campbell Island population. The provisional results, presented to AEWG this month, estimate that the current levels of mortalities due to the SBW6I fishery are below these sustainable limits. The revisions suggested by members of the AEWG are presently being incorporated by NIWA and will be available in their final report, due next week. When it is completed, we offer to provide this final assessment to you as part of our submission on the sustainable management of SBW6I fishery and on the impacts it has on sea lions.

Yours sincerely



George Clement  
*Chief Executive*





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27 February 2014

## **Submission on the Review of Deepwater Sustainability Measures for 1 April 2014**

The Environment and Conservation Organisations of NZ (ECO) is the national alliance of 55 groups with a concern for the environment. ECO has been concerned at the state of marine management and the impacts of fishing on threatened species for over 20 years.

Thank you for the opportunity to comment on this proposal.

### **SUMMARY Southern Blue Whiting (SBW6I)**

1. ECO supports option 1 (status quo) for the southern blue whiting fishery for Campbell Island.
2. While the current stock status is 58%Bo, Southern Blue Whiting is known to have highly variable recruitment. This is consistent with the goal to maintain stocks at or above Bmsy.
3. The stock status is predicted to decline by around 20% even with the same TACC over the next four years.
4. Stable TACC and catches over several years with the similar vessel numbers is preferred to increase catches and effort.
5. Any increase in catch is likely to result in the increase in by-catch of the threatened sea lions. It will also increase in the deaths of fur seals and sea birds.
6. Sea lion deaths in the fishery and monitoring them and getting more scientific information on the interaction will be affected if there is an increase in effort or vessels.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Bg L W', with a stylized, cursive script.

Barry Weeber  
Co-Chairperson

# 1. INTRODUCTION

Thank you for this opportunity to comment on the Review of Deepwater Sustainability Measures for 1 April 2014.

## B. GENERAL PRINCIPLES

Our main submissions on the Ministry's IPP are:

1. The proposals do not consider all the obligations on a decision-maker under sections 5, 8 to 10, and 11 to 14 of the Fisheries Act 1996.
2. Some of the considerations are a backward step over last year - there is little consideration of international obligations (section 5) and section 9 obligations, especially marine biodiversity and habitat of particular significance to fisheries management.
3. The Ministry needs to consider how environmental considerations are better integrated with pure single stock assessment considerations. Every year the inclusion of by-catch, adverse effects of fishing, maintenance of biodiversity, etc, tend to be after-thought considerations rather than central issues to setting catch limits. The Ministry could learn from the approaches taken by CCAMLR in this regard.
4. The Ministry needs to consider the obligations on future generations and the need to avoid, remedy or mitigate the effects of fishing on the marine environment.
5. International agreements and measures have further articulated the precautionary approach. Section 5 of the Fisheries Act requires decision makers to act in a manner consistent with "New Zealand's international obligations relating to fishing". Amongst these obligations is the United Nations Food and Agriculture Organisation (FAO) Code of Conduct on Responsible Fisheries (1995) which states that:

*"6.5 States and subregional and regional fisheries management organizations should apply a precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment, taking account of the best scientific evidence available. The absence of adequate scientific information should not be used as a reason for postponing or failing to take measures to conserve target species, associated or dependent species and non-target species and their environment."*

Article 7.5 of the Code of Conduct further set out what constitutes precautionary management in fisheries.<sup>1</sup>

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### <sup>1</sup> 7.5 Precautionary approach

- 7.5.1 States should apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment. The absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures.



The United Nations Implementing Agreement on High Seas Fisheries and Straddling Stocks<sup>2</sup> includes a requirement on “*coastal States and States fishing on the high seas [to] apply the precautionary approach in accordance with article 6.*” Article 6 includes requirements for:

- “1. *States shall apply the precautionary approach widely to conservation, management and exploitation of straddling fishstocks and highly migratory fishstocks in order to protect the living marine resources and preserve the marine environment.*
2. *States shall be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures.*”

Therefore, where information is uncertain or unknown about the state of a stock or biological information, the decision should favour lower catch limits or more environmentally stringent regulations.

6. Six key issues regarding the management of fisheries-related impacts on the aquatic environment were identified through the Strategy on the Management of the Environmental Effects of Fishing consultation process undertaken by ECO and Forest and Bird in 2001. These issues describe problems relating primarily to the institutional, legal and policy frameworks under which fisheries-related impacts on the aquatic environment are managed. The key issues identified were:

- Limited opportunities for public participation in fisheries management;
- Gaps in information, monitoring and research capacity;

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7.5.2 In implementing the precautionary approach, States should take into account, inter alia, uncertainties relating to the size and productivity of the stocks, reference points, stock condition in relation to such reference points, levels and distribution of fishing mortality and the impact of fishing activities, including discards, on non-target and associated or dependent species, as well as environmental and socio-economic conditions.

7.5.3 States and subregional or regional fisheries management organizations and arrangements should, on the basis of the best scientific evidence available, inter alia, determine: stock specific target reference points, and, at the same time, the action to be taken if they are exceeded; and stock-specific limit reference points, and, at the same time, the action to be taken if they are exceeded; when a limit reference point is approached, measures should be taken to ensure that it will not be exceeded.

7.5.4 In the case of new or exploratory fisheries, States should adopt as soon as possible cautious conservation and management measures, including, inter alia, catch limits and effort limits. Such measures should remain in force until there are sufficient data to allow assessment of the impact of the fisheries on the long-term sustainability of the stocks, whereupon conservation and management measures based on that assessment should be implemented. The latter measures should, if appropriate, allow for the gradual development of the fisheries.

7.5.5 If a natural phenomenon has a significant adverse impact on the status of living aquatic resources, States should adopt conservation and management measures on an emergency basis to ensure that fishing activity does not exacerbate such adverse impact. States should also adopt such measures on an emergency basis where fishing activity presents a serious threat to the sustainability of such resources. Measures taken on an emergency basis should be temporary and should be based on the best scientific evidence available.

<sup>2</sup> The United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (in force as from 11 December 2001).

- Lack of precaution and environmental assessment in decision-making;
  - Lack of spatial and ecotype approach to policy and planning;
  - Dominance of private property rights approach;
  - Lack of recognition of non-extractive use values.
7. A recent review of application of the FAO Code of Practice<sup>3</sup> indicates that New Zealand needs to do a lot more to implement the code, particularly in the area of stock management, impacts of fishing, and bycatch and habitat effects.

## B.2. Research needs

We are concerned that the Ministry is not undertaking adequate research to manage most of the species under the Quota Management System. Less than 15 percent of the stocks in the quota management system have estimates of current biomass or yield estimates.

ECO notes that the Worm et al (2009)<sup>1</sup> paper only accepted 19 assessments which in total cover 18 quota stocks out of the 629 fish stocks quota management system. This indicates that the Ministry needs to know much more about our fisheries if that is all of our stock assessments the international fisheries science community will accept.

We note that this report also recommends that stocks be maintained above Bmsy:  
*"In fisheries science, there is a growing consensus that the exploitation rate that achieves maximum sustainable yield should be reinterpreted as an upper limit rather than a management target. This requires overall reductions in exploitation rates, which can be achieved through a range of management tools."*

New Zealand is undertaking less trawl surveys and fisheries research than it was 15 years ago. ECO considers the comments made by McKoy (2006)<sup>2</sup> are still relevant and that New Zealand has a fisheries management regime which has:

- "Insufficient research resources, people, equipment and funding;
- Limitation of scientific method and theory to tackle many questions;
- An inadequate understanding of the dynamics of New Zealand marine ecosystems;
- A management system which provides very strong perverse incentive to keep research funding low;
- A management system which treats the QMS as the whole of the system and which has not been able to develop any coherent management objectives on which to base decisions about the effectiveness of management or the allocation of scarce resource such as research resources."

The long echoed comment in Antarctic fisheries management (CCAMLR) first echoed by the former UK representative, John Heap, of "no data, no fish", should be taken to heart in the New Zealand fisheries management regime.

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<sup>1</sup> Worm B, R Hilborn, J K. Baum, T A Branch, J S Collie, C Costello, M J Fogarty, E A Fulton, J A Hutchings, S Jennings, O P Jensen, H K Lotze, P M Mace, T R McClanahan, C Minto, S R Palumbi, A M Parma, D Ricard, A A Rosenberg, R Watson, D Zeller (2009) Rebuilding Global Fisheries *Science* 31 July 2009: Vol. 325. no. 5940, pp. 578 – 585 DOI: 10.1126/science.1173146

<sup>2</sup> McKoy J (2006) Fisheries resource knowledge, management, and opportunities: Has the Emperor got no clothes? p35-44. In New Zealand's ocean and its future: knowledge, opportunities and management. Proceedings of a conference organised by the Royal Society of New Zealand, 16 November 2006, Miscellaneous Series 70.



**B.3. Effects of Climate change**

The effects of climate change on fisheries and the emissions of greenhouse gases from the fishing industry needs to be included in the considerations of the Ministry of Fisheries.

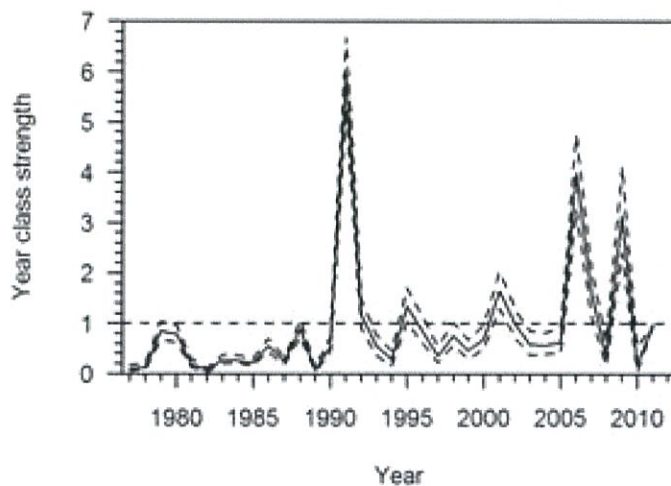
This includes the consideration of the impacts of ocean acidification of the marine environment on fisheries.

## 2. FISH STOCKS FOR REVIEW

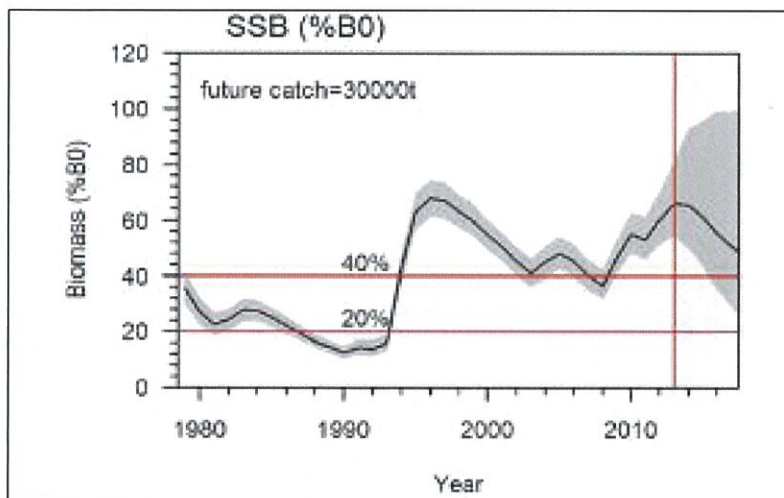
### C. Fish Stocks: Southern Blue Whiting (SBW6I)

Southern blue whiting is known to have highly variable year classes. The ecological implications of this variability or the environmental drivers are not well understood.

The current assessment relies on the very strong 2006 and 2009 year class which is slightly less than the record 1991 year class.



These two years classes are well above the average observed year's classes in the last 35 years.



The population is predicted to decline with no change in catches.

This change in population is consistent with the obligations in the Fisheries Act to maintain stocks at or above Bmsy.

The implications of southern blue whiting population in the Campbell Rise ecosystem needs to be considered.

Juvenile southern blue whiting<sup>3</sup> is an important part of the diet in several albatross species:

*Dietary samples collected at Campbell Island in summer 1997 indicate that southern blue whiting (Micromesistius australis) formed the bulk of the food of black-browed albatrosses (Diomedea melanophrys impavida) during the chick-rearing period. Birds preyed upon a single size class of fish with a mode at 80-90 mm standard length; fish were 4-5 months old and belonged to the 0+ age group. Satellite tracking showed that, when performing trips of short duration, adult albatrosses foraged within the 1000 m depth contour in the sub-antarctic zone north of Campbell Island. The feeding ecology of albatrosses thus suggests that juvenile (0+) southern blue whiting are pelagic and occur in dense schools in the top 5 m of the water column over the Campbell Plateau during the summer months. The high reliance of birds on juvenile southern blue whiting during the chick-rearing period has implications for the management of the southern blue whiting fishery and the conservation of black-browed albatrosses and other marine predators occurring in the New Zealand sub-antarctic area.*

They went on to note that:

*the high reliance of birds on southern blue whiting during chick rearing has implications for the management of the fish stocks. If the fishery significantly reduces the spawning biomass which in turns reduces the abundance of younger age-classes, birds may be forced to find alternative food sources, eventually resulting in lower breeding success and further declines in populations.*

On Campbell Island the populations of black-browed and grey-headed albatrosses have declined dramatically since the 1940s.

## Sea lions

Southern blue whiting fishing around Campbell Island is the second most important fishery capturing the threatened New Zealand sea lion.

The sea lions are listed as a vulnerable threatened species under the IUCN Red List and national critically under the Department of Conservation list of New Zealand threatened species. The population assessed on the basis of pup counts has declined by nearly 50 percent

The by-catch levels of sea lions that occurred last year was not unusual as shown by table 5 in the IPP

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<sup>3</sup> Cherel Y, S Waugh and S Hanchet (1999) Albatross predation of juvenile southern blue whiting (*Micromesistius australis*) on the Campbell Plateau, New Zealand Journal of Marine and Freshwater Research, 33:3, 437-441, DOI: [10.1080/00288330.1999.9516889](https://doi.org/10.1080/00288330.1999.9516889)



**Table 5: Effort, observed and estimated New Zealand sea lion captures in SBW 6I by fishing year <sup>a</sup>**

Year	Total Tows	% tows Observed	Observed sea lion captures	Mean estimated sea lion captures
2004	690	34	1	3
2005	726	37	2	5
2006	521	28	3	9
2007	544	32	6	15
2008	557	41	2	5
2009	627	20	0	1
2010	550	43	11	24
2011	815	40	6	14
2012	591	76	0	1

As ECO representatives advised MPI science representatives at last year's AEWG meeting – there was a number of failings in the process of managing the fishery last year which will delay progress in reducing sea lion deaths in future years. This includes:

- The failure to return sea lion carcasses for autopsy or other genetic material so that the origin of the sea lions could be determined;
- The failure to take core temperature of the animals to better determine when they were drowned;
- The failure to take age data from the death animals, if carcasses were not returned;
- The failure to acknowledge that this is an ongoing problem and not a one –off event.
- The failure to take a technical approach to the use of SLEDs in a new fishery which will further affect the usefulness of any future results.

### **Other bycatch**

Increase in fishing effort will increase the bycatch of both fur seals and seabirds.

Seabird captures from direct impacts are low compared to squid but range up to 1.34 birds per hundred tows. The level of cryptic mortality of seabirds in the southern blue whiting fishery is not known but is likely to be much higher the observed level of captures.

The problem is that trawl warp strikes is not include in the estimates for trawl fisheries – birds hitting warps behind the vessel and being injured or killed is order of magnitude greater impact.

*“For every large bird that was reported by observers as being captured on the warps, there were an estimated 244 (95% ci: 190-330) large bird strikes. For every small bird reported by the observers as being captured on the warps, there was an estimated 6440 (95% bootstrap ci 3400 to 20000) small bird warp strikes.” (Abraham 2010)<sup>4</sup>.*

<sup>4</sup> Abraham, E R (2010) Warp Strikes in New Zealand trawl fisheries, 2004-05 to 2008-09. New Zealand Aquatic Environment and Biodiversity Report No. 60.

While mitigation (tori lines, bafflers etc) does reduce the potential for warp strikes it doesn't eliminate the problem.

**Summary:**

1. ECO supports option 1 (status quo) for the southern blue whiting fishery for Campbell Island.
2. While the current stock status is 58%Bo, Southern Blue Whiting is known to have highly variable recruitment. This is consistent with the goal to maintain stocks at or above Bmsy.
3. The stock status is predicted to decline by around 20% even with the same TACC over the next four years.
4. Stable TACC and catches over several years with the similar vessel numbers is preferred to increase catches and effort.
5. Any increase in catch is likely to result in the increase in by-catch of the threatened sea lions. It will also increase in the deaths of fur seals and sea birds.
6. Sea lion deaths in the fishery and monitoring them and getting more scientific information on the interaction will be affected if there is an increase in effort or vessels.



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**28<sup>th</sup> February 2014**

**WWF-New Zealand submission:**

**Review of sustainability controls for southern blue whiting (SBW 6I)**

Contact:

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**WWF-New Zealand is part of the international conservation organisation World Wide Fund for Nature (WWF).**

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## **Purpose**

The Ministry of Primary Industries (MPI) is reviewing the sustainability measures and management controls for southern blue whiting stocks in the Campbell Island quota management area (SBW 6I).

This document provides WWF-New Zealand's submission on this Initial Position Paper (IPP).

## **WWF-New Zealand**

WWF-New Zealand (WWF) is part of a global network, using a science-based approach to encourage government, business and communities to conserve and manage our environment more sustainably. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by:

- Conserving the world's biological diversity;
- Ensuring that the use of renewable natural resources is sustainable;
- Promoting the reduction of pollution and wasteful consumption.

## **Background**

Southern blue whiting are almost entirely restricted in distribution to sub-Antarctic waters. They are dispersed throughout the Campbell Plateau and Bounty Platform for much of the year, but during August and September they aggregate to spawn near the Campbell Islands, on Pukaki Rise, on Bounty Platform, and near Auckland Islands over depths of 250-600 m. During most years, fish in the spawning fishery range between 35-50 cm fork length (FL), although occasionally a smaller size class of males (29-32 cm FL) is also present.

Landings were chiefly taken by the Soviet foreign licensed fleet during the 1970s and early 1980s, and the fishery fluctuated considerably peaking at almost 50 000 t in 1973 and again at almost 30 000 t in 1979. The Japanese surimi vessels first entered the fishery in 1986, and catches gradually increased to a peak of 76 000 t in 1991-92. A catch limit of 32 000 t, with area sub-limits, was introduced for the first time in the 1992-93 fishing year. The total catch limit increased to 58 000 t in 1996-97 for three years. The southern stocks of southern blue whiting were introduced to the Quota Management System on 1 Nov 1999. The fishing year was also changed to 1 April to 31 March to reflect the timing of the main fishing season.

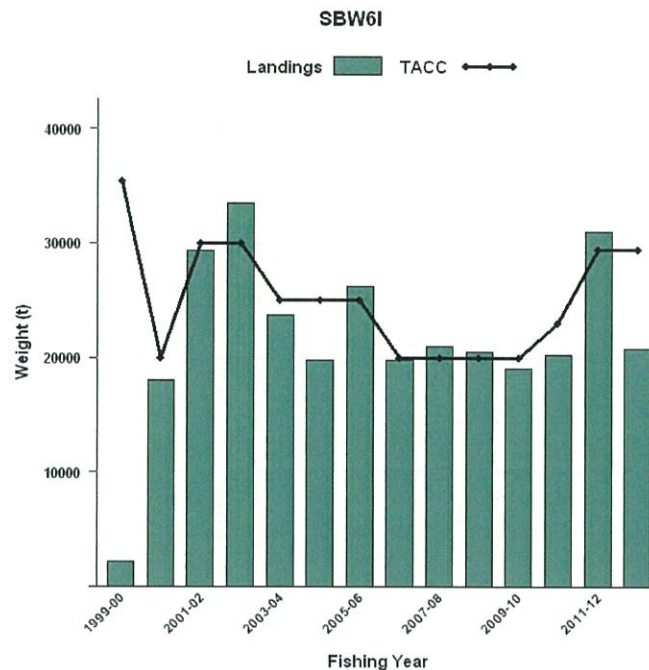


Figure 1: Historical landings and TACC for the SBW6I (Campbell Island Rise) stock

Landings have been between 25 000 t and 40 000 t since 2000, with the majority of the catch currently taken by foreign charter vessels (predominantly Ukrainian) producing headed and gutted or dressed product. On the Campbell Island Rise and the Bounty Platform the TACC has been almost fully caught in each year since 2005-06, except on the Campbell Island Rise in 2012–13 where the TACC was significantly under-caught (Figure 1). On the other grounds, the catch limits have generally been under-caught in most years since their introduction. This reflects the relatively low economic value of the fish and difficulties in both the timing and locating of aggregations experienced by operators. On the Pukaki Rise and Auckland Islands Shelf, operators have generally found it difficult to justify expending time to locate fishable aggregations, given the small allocation available in these areas, the relatively low value of the product, and the more certain option available to fish southern blue whiting at Campbell Island where aggregations are concurrent.

## Current Stock status

A recent stock assessment in 2014 was conducted using data from an acoustic research survey by the *R.V. Tangaroa* during late 2013. The SBW 6I stock status is now estimated to be 58%B<sub>0</sub> (Figure 2) which is above the management target for this species at 40%B<sub>0</sub>, mainly due to the strong year class progressing through the fishery that was first observed in 2009.

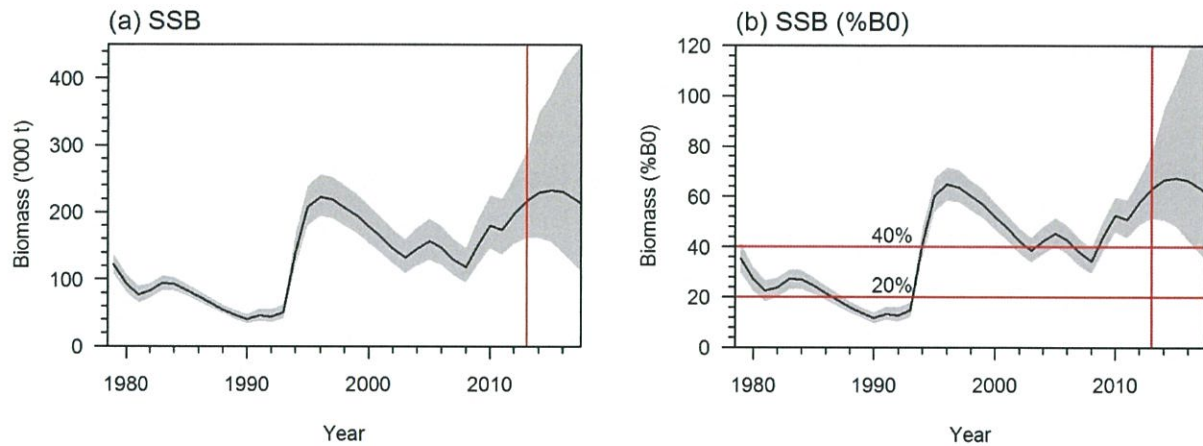


Figure 2. Spawning stock biomass (SSB) projections for the SBW6I fishery from 2014.

## **Proposal**

The ministry has proposed three options in the SBW 6I consultation document; to retain the TAC at the status quo of 30,000 tonnes, or to increase the TAC either by 5,000 tonnes to 35,000 tonnes under option 2 or by 10,000 tonnes under option 3.

## **Comments**

### **Marine mammal interactions**

#### **NZ sea lion interactions**

The New Zealand (or Hooker's) sea lion (*Phocarcos hookeri*) was classified in 2008 as "Vulnerable" by IUCN and in 2010 as "Nationally Critical" under the NZ Threat Classification System. Pup production at the main rookeries shows a steady decline since the late 1990s.

There has been a steady increase in the number of observed captures of NZ sea lion in the SBW trawl fishery from close to zero before year 2000 to 11 observed captures in 2009–10 to a total of 21 captures in 2013. The sea lion captures were all close to the Campbell Islands in SBW6I and were almost all males.

As a result of the significant number of New Zealand sea lion captures in 2013 the industry issued an expedited audit request on the 8<sup>th</sup> of September.



## Expedited Audit Request 2013

The number of sea lion interactions within the fishery is routinely modelled based upon observer information. The model used to estimate these numbers has been reviewed and accepted by the Aquatic Environment Working Group. The estimates show that considerable inter-annual variability in interactions occurs, and that historical levels of interaction, notably 2007, 2010 and 2011, have reached similar levels to those currently seen in 2013, while the confidence intervals in other years have also reached those levels. It is noted that in 2013 there was 100% observer coverage on the vessels, with those observers tasked to watch all haul events during the season.

Personal accounts from observers onboard these vessels indicated a high level of aggressive male sea lions feeding in the close proximity to nets during hauling. MPI stated that this “trend” of higher interactions at the beginning of the fishery was consistent with previous years (Figure 3).

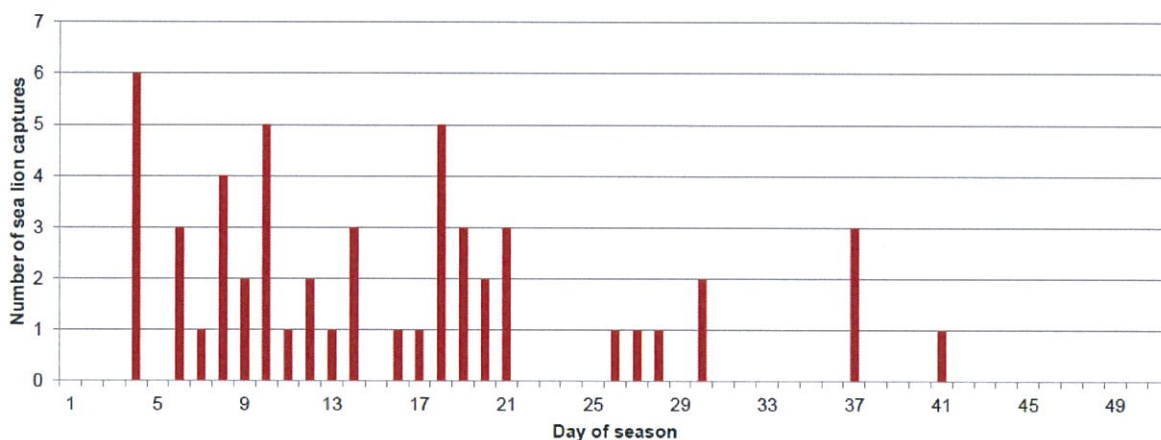


Figure 3. Timing of captures of New Zealand sea lions from the SBW6I fishery from 2004-2013

Comments from a vessel operators meeting on NZ sea lion interactions on the 10<sup>th</sup> of October 2013 concluded that *“that no place was safe from sea lion interaction risk in this fishery and that vessels that arrived on the grounds first felt they attracted all the attention, whereas later animals were both divided in their attention to vessels, perhaps satiated with food and their behaviour was less aggressive and risky”*

In the 4<sup>th</sup> week of the 2013 fishery Sea Lion Exclusion devices (SLEDs) were made mandatory on all vessels (except one acting as control), in a bid to reduce sea lion mortalities. After introduction of SLEDs there was only one further documented interaction with a sea lion, not resulting in a fatality.



Following a detailed examination by the Conformity Assessment Body (Interek Moody Marine) for this Marine Stewardship Council fishery, the following recommendations were made from the expedited audit request:

1. By the next scheduled audit, identify and document in collaboration with key stakeholders the potential causes of sea lion interactions within the SBW6I fishery during the 2013 fishing year. Where those identified causes are within the control of the fishery, or where reasonable measures by the fishery could mitigate those interactions, consult on appropriate mitigation approaches that will reduce the potential for interactions for the 2014 fishing season and beyond. In addition, identify contingency measures for forthcoming seasons that include pre-agreed actions by vessel operators in the event of the occurrence of unusual interactions.
2. SLEDs were trialled in the SBW6I fishery this year after a request from the Minister of Conservation and Minister for Primary Industries, as a mitigation measure in response to the sea lion interaction rates seen early in the 2013 season. Their implementation was subsequent to the vast majority of interaction events (there being one further interaction before the end of the season). If the potential causes of sea lion interactions within the SBW6I fishery during the 2013 fishing year (recommendation 1) suggest the use of SLEDs as a candidate mitigation tool, it is recommended that the effectiveness of SLEDs as an additional mitigation measure for NZSL in the SBW6I fishery should be investigated further, including their deployment, safety at sea, grid specifications, and any effect on catch quality and loss of catch.

As a result of this expedited audit request the Deepwater Group stated that it was their intention that “sea lion captures in SBW 6I be reduced to zero”. The Ministry also recognized that “recent research has shown that SLEDs are an effective mitigation tool that reduces the risk of a sea lion mortality resulting from an interaction with trawl gear”.

With this in mind WWF NZ would expect that the industry would make the **use** of SLEDs on board SBW6I vessels for the 2014 season **mandatory**. However, in discussions with the DWG it was discovered that vessels will only be required to **carry** SLEDs on each vessel, and that they will **not** be required to use them from the beginning of the fishery.

This period has now been shown when the **highest** interactions occur between sea lions and vessels and WWF NZ is extremely concerned industry is not implementing the use of SLEDs from the start of the 2014 season. It is quite obvious to WWF NZ that SLEDs will only be given mandatory use on vessels **after** more fatalities of New Zealand sea lions and that this can be avoided with using SLEDs from the start of the fishery.





## **Conclusion**

WWF NZ can not support the proposal to increase the TAC for this fishery under option two or three until industry commit to making the use of SLEDs onboard commercial trawlers in the SBW 6I fishery **mandatory from the beginning of the season**.

It is our opinion that it is simply not enough to state that vessels in this fishery will “carry” SLEDs onboard, as this indicates they will only be used after interactions with more New Zealand sea lions which would result in more fatalities of this “protected” species in a Marine Stewardship Council fishery.

The mandatory use of these devices in this fishery should be a high priority for the fishing industry, especially with regards to recent news that pup production of New Zealand sea lions in the neighbouring Auckland Islands has been declining to a point where their population is under threat.

Furthermore, not making the use of SLEDs mandatory in this fishery contradicts the statement by the DWG that it is “their intention to reduce sea lion mortalities to zero”.

WWF NZ would recommend that the fishery continues with option 1, the “Status quo” until it implements the mandatory use of appropriate mitigation devices that have shown to be effective in reducing New Zealand sea lion interactions in the SBW6I fishery.

Thank you for considering the matters raised in this submission.

Sincerely,

Paul Crozier  
Sustainable Fisheries Advocate, WWF-New Zealand





**SANFORD LIMITED**  
**SUSTAINABLE SEAFOOD**

28 February, 2014

Deepwater Fisheries Management  
Ministry for Primary Industries  
PO Box 2526  
Wellington 6011

To whom it may concern,

**Review of sustainability controls for Southern Blue Whiting - Campbell's Stock  
(SBW6I)**

And the absence of a  
**Review of sustainability controls for Southern Blue Whiting – Bounties Stock  
(SBW6B)**

**SBW6I**

Sanford appreciates the opportunity to make a submission on your *2014 Review of sustainability control for southern blue whiting (SBW6I) (IPP)*. Sanford owns approximately 11% of the SBW6I quota and has an interest in this fishery greater than that of the general public.

Sanford has read and supports the submission lodged by the Deepwater Group (DWG).

Sanford supports an increase in the TACC to 39,200t based on the provisions set out in the Deepwater Group's submission, which are:

- Update the Management Strategy Evaluation (MSE).
- Use the MSE results to determine the timing of the next biomass survey, and if not required in 2015 institute measures to delay this.
- Review the Harvest Strategy and the Management Target for this fishery.
- Update the management for this stock in the Deepwater Fish Plan accordingly.
- Review the management measures prior to the 2015-16 season.

In support of our position Sanford notes that this fishery is well understood, science has verified that the stock is robust (with a reasonable spread of year classes coming through), acoustic estimates have been revised (which provides for better accuracy) and there is good aging data across all years.

In addition and perhaps more importantly the fishery can be readily monitored and any changes can be detected quickly and reacted upon.

As there are no identified sustainability issues from increased utilisation, it therefore makes good economic sense to take the opportunity to increase fishing effort / extraction.

#### SBW6B

Sanford echoes the concern expressed by the Deepwater Group that the Ministry has not been able to put out an IPP for SBW6B. Sanford owns 11% of the TACC.

Sanford acknowledges that some of our colleagues are strongly in the view that the TACC should be increased. Sanford is neutral (at this point) as the required details for full consideration should have been available by the way of an IPP covering the sustainability measures for this individual fish stock.

Sanford supports the Ministry to making a firm commitment to review the TACC by February 2015 and issue an IPP within the expected timeframes.

Sincerely

A handwritten signature in blue ink, appearing to read 'D. Shaw', is written over the printed name.

Darryn Shaw  
Deepwater Manager  
Sanford Limited