

10 OCTOBER 2013

Date and Venue	Thursday, 10 October 2013		
	1300 – 1500 hrs		
	Talley's Group Ltd Akersten St Port Nelson		
Present	Graham Patchell Ross Tocker Valeri Belov Andy Smith John Whitlock Hamish Tijsen Chris Carey Tim Law Grant Curtis Peter Ballantyne Richard Wells (Chair)	Sealord Group Limited Sealord Group Limited Sealord Group Limited Talley's Group Limited Talley's Group Limited Talley's Group Limited Independent Fisheries Ltd Maruha Corporation Aurora Fisheries Ltd Aurora Fisheries Ltd DeepWater Group Ltd	
In Attendance	Vicky Reeve Jeremy Helson <i>V. Reeve and J. Helson joine</i>	Ministry for Primary Industries Ministry for Primary Industries ed the meeting at 1400 hrs	
1. Background &Purpose of Meeting	The three major southern blue whiting fisheries are MSC certified. The Campbell fishery (SBW 6I) has a history of sea lion captures. This was raised as an issue by the assessment and a recommendation to closely monitor interactions was made by the auditing body. DWG also undertook a PBR analysis, which was pessimistic in nature but set a very conservative level of sea lion mortalities at which the population was not liable to adverse effects. MPI also undertook such an analysis which set a higher figure.		
	The 2013 season, which commenced 15 <sup>th</sup> August, saw an unprecedented number of captures, most resulting in mortalities, within the first 7-15 days of the fishery. Given that it appeared that we might exceed the PBR levels there was a major focus on the events, risks and mitigation during the season. The previous year's record of nil captures coupled with high observer coverage added to the unusual nature of the 2013 events.		
	Subsequently the capture rate dropped markedly and only one further animal was caught after 1 September 2013.		
	There was focus during the period on mitigation, culminating, at the request of the Ministers of both Primary Industries and Conservation, to implement the use of SLEDs which commenced across the majority of the fleet from 7-8 September 2013.		
	This meeting was called to review events and responses to these captures with the purpose of being able to better manage future operations in the fishery with least risk to sea lions. There was to be some focus on the previously untested use of SLEDs in the bulk fishery.		

1. 2. Key Facts	The following facts were presented to the meeting (see also Table 1 at end of document):		
	<ul> <li>Fishery commenced 16<sup>th</sup> August and finished 2<sup>nd</sup> October</li> </ul>		
	<ul> <li>10 vessels were engaged in the fishery, from five operating companies</li> </ul>		
	<ul> <li>There was an observer (at least one) on every vessel</li> </ul>		
	<ul> <li>Two vessels also had company representatives aboard</li> </ul>		
	17 animals were drowned, four released alive		
	• All animals except one were caught in the first 15 days of the fishery; 66% of captures occurred in the first week with only three vessels in the fishery		
	<ul> <li>There were two major multiple capture events – five animals and four animals in two tows by separate vessels</li> </ul>		
	All animals were male		
	• There were some that were clearly only recently caught (i.e. on haul) and others found in the codend and likely caught during shooting of fishing		
	<ul> <li>Vessels with past history of minimal captures had the most captures this year, and vessels with a previous high capture rate history caught very few</li> </ul>		
	<ul> <li>Four vessels caught no animals, three vessels caught only one each, three vessels caught 18 amongst them</li> </ul>		
	<ul> <li>No animals were caught between 2<sup>nd</sup> September and 8<sup>th</sup> September (when SLEDs were deployed by nearly all vessels in the fishery)</li> </ul>		
	<ul> <li>No sea lions were captured in tows using SLEDs but at least two fur seals were</li> </ul>		
	• There were large numbers of sea lions and fur seals (it was difficult to clearly identify them in the water) present (four - five up to 30-60) around vessels especially during hauling and any vessel that moved to a new ground found itself "surrounded" within 36-72 hours		
	The sea lions appeared particularly aggressive when compared to previous years		
2. 3. Discussion of Causes of Risk	a Lion Feeding Behaviour		
	<ul> <li>It was noted that animals appeared far more aggressive than last year</li> </ul>		
	• Animals were particularly tuned to the hauling operation, congregating on the sound of winching from "nowhere" with anything from 5-20 animals chasing the codend and pulling fish from the lengtheners and cod ends		
	<ul> <li>There was no information as to why feeding was more aggressive although some skippers linked this to the "poor squid season" in SQU 6T 6-8 months prior</li> </ul>		
	• It was noted that the usual southern aggregation of SBW was not present his year (RV <i>Tangaroa</i> survey weekly report) but that the aggregation to the east of Campbells was large and in same place as last year.		
	DWG will follow-up with MPI and see if any major oceanographic conditions (e.g. water temperatures) were especially different. It was thought there were more fur seals present and that captures of these had increased. DWG would seek more information on trends in fur seal capture rates for the Campbell Island fishery.		
	Location and Seasonality/Timing		
	• Last year a large amount of effort was undertaken on the grounds approximately 120 nautical miles East of Campbells. In preceding years there had been higher rates of sea lion interactions on the same latitude but significantly closer to the Island, i.e. 70 nm offshore.		
	<ul> <li>The majority of captures this year occurred on grounds North/North East of Campbell's where historically capture rates have been very low</li> </ul>		
	• When the first capture events occurred two different vessels visited the other known grounds (east and south of Campbells). There were sea lions present there and		

animals)

- In previous years captures have been made throughout the season or towards the latter part of the season, i.e. last 2 weeks of September
- DWG felt prior to the season that the least risk was to be on the grounds earlier rather than later and on the northern grounds. This was demonstrated to be incorrect.

It was considered that this year "no place was safe" from sea lion interaction risk. Those who arrived on the grounds first felt they attracted all the attention and that later animals were both divided in their attention to vessels, perhaps satiated with food and their behaviour was less aggressive and risky. The capture statistics support this with the first 3 vessels alone on the grounds accounting for the majority of captures in the first several days. In the Bounty Island SBW fishery and Cook Strait hoki fishery, fur seal risk seems greatest for the "first or last." vessels in the fishery. Whether it is possible to have vessels arrive in a co-ordinated manner was debated and will be considered further.

If the fish marks are larger to the east (information could be got from NIWA) then this might possibly provide a fishing ground that has less need for vessel turns. DWG will follow up on this.

### **Offal Discharge**

- It was noted that some fishmeal plants struggle to handle all offal and that at times liver and roe in particular end up on the factory deck and thence overboard
- Reports from observers allowed for feedback and improved performance in this area on those vessels where it was sub-standard
- One vessel with a high catch rate was observed to have very good offal management
- Two vessels in the fleet do not have fishmeal plants; discharge large amounts of offal/processing waste and neither of these vessels caught sea lion
- It was noted that while sea lions could be observed feeding on small amounts of factory waste while attending alongside the vessel, this appeared relatively "relaxed and opportunistic" rather than a primary attractant to the vessel (especially compared to the fish in the net at hauling)
- It was reported that a company representative thought that the offal "fed and relaxed" the sea lions making them less aggressive

While it is apparent that offal is eaten by sea lions it was not considered a primary cause of risk. This noted, good offal management practices are required to reduce risk to seabirds and will continue to be a point of focus and monitoring from both MPI and DWG.

The option to satiate/distract sea lions by deliberately feeding them in a controlled manner was also discussed (noting that deliberate feeding is currently unlawful under the Marine Mammals Protection Act). This option was raised by operators early in the season when captures were at a concerning level. The fleet was preparing to implement a feeding regime when DWG was advised that this is against the law (Marine Mammals Protection Act). The meeting considered that the concept of controlled feeding to satiation was a potential tool for future consideration.

#### Vessel Turns With Gear Deployed

- Vessel turns with gear in the water have always been considered a risk if not executed correctly and swiftly
- It was noted that in bad weather vessels undertake tows in only one direction as turning across and into the weather is not possible
- When the fish mark is large, some vessels (although not all) can catch enough fish on a single pass through the mark, but in a smaller (or "shorter" mark) a return pass is necessary to take say 60 tonnes of catch
- It was agreed that turns with the gear raised to near the surface (say 150 m as opposed to the fishing depth of 400-500 m) or with one door hauled back would be higher risk as the gear was more accessible and not fully open
- It was thought that least risk was gained from no turns (if possible) but if turns were undertaken they should be with either the fishing gear fully deployed at fishing depth (maintaining normal gear configuration or by hauling the gear to the surface and having the doors up to the transom to close the gear

- It is debateable which of any one of the different potential actions of hauling the gear right to the surface to turn; or aboard and then re-shooting; or executing a turn at fishing depth poses the most risk
- Observer feedback suggested that high risk turns were not being undertaken

It was thought that minimal turns meant less risk. If turns were necessary the Captain should make the decision to execute this operation choosing either at depth or with doors up and gear closed up. The DWG MMOP gave adequate instruction on this.

#### **Hauling Speed**

- Some vessels had advocated a slower hauling speed (noting that this speed was a combination of vessel speed through the water and winch inpull speed
- It is unlikely that going either "fast" or "slow" (and discussions were of speeds that were between 4-5 knots vs 2-3 knots) were likely to impact on sea lions ability to negotiate gear given their mobility and competence in the water
- It was thought that different speeds might alter gear geometry and allow easier access to the net near the surface
- One vessel operated a particular slower method but eventually caught a sea lion despite this methodology
- Two vessels of note, one having least horsepower and a slow hauling speed, and one having very high horsepower and fast hauling speed, never caught a sea lion suggesting that hauling speed is not a primary factor
- It was agreed that leaving gear on the surface for any reason was likely to heighten risk and the DWG MMOP notes that gear needs to be retrieved on deck (head-line and ground-rope up the ramp) as quickly as possible
- It was not obvious that gear failures or excessive gear time near the surface was responsible for the increased capture rate this season
- Maintaining gear in good condition was a risk management tool to prevent gear being on the surface for prolonged periods

It was considered best that Captains continued to maintain best practice retrieving their gear in a prompt and seamanlike manner and that there were no grounds to recommend a particular haul speed.

### SLED Use

- Two vessels undertook the initial trial deployments, targeting small but increasing catches, without apparent problems either in catch loss or damage to fish as reported by the factories aboard
- DWG produced a set of instructions to vessels to use should deployment be deemed necessary (noting that some crews were not fully experienced with SLED installation)
- When the fleet was asked to deploy this was able to be carried out as all had sailed to the grounds with SLEDs aboard as a contingency given the early spate of captures
- One vessel continued without a SLED whilst undertaking a different haul regime (on the basis that if it caught a sea lion it would deploy a SLED immediately which subsequently it did on 23<sup>rd</sup> of September, 15 days after the fleet deployed).
- The surimi vessel deployed its SLED but after three days fishing this was damaged beyond repair and it finished the season without a SLED and with no captures for the entire season. It was noted that this vessel, if required to use a SLED in future, may need to construct one of stronger materials given its particular catch requirements and gear configuration
- Other than the above issue with the surimi vessel, there were no reports of problems in deploying or using SLEDs and most (although not all) skippers thought that catch rates were not affected
- There were instances of porbeagle sharks, opah and two-three fur seals being retained in the SLED on the grid face
- Concerns regarding damage to fish was to be thoroughly investigated by Sealord with full testing of landings of catch taken prior and post SLED installation (this to be

reported back to DWG)

 It was suggested that to reduce stickers in the hood it could be considered to hang the hood netting on the square or use bigger mesh. Bigger mesh may reduce any flow of water into the escape hole which is thought to reduce fish escapement.

It appears that SLED deployment is operationally possible. The extent to which SLEDs were responsible for the rapid reduction in captures is unclear as there were no captures observed for 6-7 days prior to their widespread deployment. However the only subsequent capture was by the control vessel which had no SLED in use at the time (but subsequently deployed). DWG agreed to follow-up with Sealord regarding results of their quality tests on SBW trunks.

#### Actions

1.	Seek information from Sealord regarding quality testing of fish that had been caught in a net using a SLED	R. Wells
2.	Seek information on oceanographic data from Campbells for months preceding SBW fishery compared to previous years	R. Wells
Seek information from MPI on fur seal capture rates over time (since 2000) at Campbells		R. Wells
<ol> <li>Seek information from NIWA regarding spatial size of SBW aggregations on the various grounds</li> </ol>		R. Wells

3. 4. Summary

While somewhat overused as a term, this year the sea lion activity and capture rate at the immediate start of the season was <u>unprecedented</u>.

This risk management programme via DWG MMOP and pre season risk briefings and associated documents was inadequate in the face of the conditions.

Full observer coverage and subsequent feedback did not suggest any significantly aberrant operational behaviour by the vessels; they reportedly operated as in past years and with a clear understanding about the imperative to minimise sea lion interactions.

It would appear that sea lion behaviour and abundance was altered and this added to the risk, especially (and almost entirely) in the opening 2 weeks of the season.

It appears that SLEDs are a useful tool that can be deployed in the fishery although some small fine tuning or modifications may be needed (especially strengthening in some particular cases). Operators supported using SLEDs at least for the start of next season as a precautionary measure until animal abundance and behaviour was observed. It was agreed that next season all vessels should carry SLEDs when leaving for the fishery.

Reducing the number of turns undertaken during fishing should be a key objective although the fleet appears to be generally applying best practice when executing turns.

**Meeting Closed** 

Meeting concluded at 1500 hours.