Western Rock Lobster Fishery/Sea Lion Interaction Scientific Reference Group

Report from meeting of 24 August 2005

The Western Rock Lobster Fishery/Sea Lion Interaction Scientific Reference Group (the SRG) met on 24 August 2005. The meeting was convened in response to the Minister for Fisheries’ announcement that there would be a 12-month moratorium on the mandatory use of Sea Lion Exclusion Devices (SLEDs). In effect this moratorium means that legislation requiring the use of SLEDs intended for the 2005/2006 season will be put back to the 2006/2007 season.

Given the urgency of this situation and the logistical difficulties in organising a face-to-face meeting, the SRG agreed to conduct this meeting using telephone conference facilities.

The composition of the SRG is:

- Ron Edwards Independent Chair
- Dr Nick Gales Australian Antarctic Division (by phone)
- Peter Mawson Department of Conservation and Land Management
- Dr Richard Campbell University of Western Australia
- Dr Nick Caputi Department of Fisheries Research Division (for Dr Jim Penn)
- Tim Bray Executive Officer (non-member)

In addition to members of the SRG a number of advisors/observers were present to observe the process and assist the SRG where required. These people were:

- Max Ball Chair, Western Australian Fishing Industry Council
- Guy Leyland Western Australian Fishing Industry Council
- Steven Gill Executive Director, Western Rock Lobster Council
- Paul Gamblin World Wildlife Fund
- Chet Chaffee Scientific Certification Systems Inc (by phone)

Apologies:

- Dr Jim Penn Department of Fisheries Research Division
- Tony Smith Audit Team Member
- Dr Bruce Phillips Audit Team Member

Prior to meeting the SRG members were provided with the following documents:
• meeting program;
• Minister Jon Ford’s media statement: “Minister orders new research on sea lion protection devices”;
• Department of Fisheries’ briefing note: “12-month moratorium on introduction sea lion exclusion devices in the western rock lobster fishery”;
• additional issues for SRG (one-page background and map).

The Chair welcomed all members and observers and thanked them for their time. The following agenda was adopted:

• to note and consider the Minister for Fisheries’ decision to delay the implementation of Sea Lion Exclusion Devices (SLEDs) in the West Coast Rock Lobster Fishery for 12 months;
• to assess the implications of the moratorium on the west coast Australian sea lion population and to provide advice on any short-term measures to mitigate sea lion pup mortalities through rock lobster pots; and
• to consider and provide advice on proposed changes to the SLEDs implementation area and other research work to be undertaken that is consistent with the broader research direction advised by the SRG.

**The implication of a 12-month delay in the implementation of SLEDs**

SRG members noted that Australian sea lions are now listed under the *Environmental Protection and Biodiversity Conservation Act 1999* as “threatened” and as a consequence a *Threat Abatement Recovery Plan* dealing with key threatening processes will have to be developed. Thus sea lion mortality in rock lobster pots remains an issue irrespective of MSC certification. At present no change in the conservation status of the Australian sea lion under State environmental legislation has been made. However, as part of State and Federal efforts to maintain parity between their respective lists of threatened species, it is likely that a nomination to list the Australian sea lion as a threatened species in Western Australia will be considered at the 2006 meeting of the Western Australian Threatened Species Scientific Committee.

In order to assess the implications and consequential risk to the west coast sea lion population of a 12-month delay in the implementation of SLEDs, SRG members discussed the vulnerability of sea lion pups to capture within rock lobster pots. It was agreed that vulnerability is age-dependent and in particular, it was noted that sea lion pups are most likely to be vulnerable to capture from five to six months of age when they enter the water, to about 24 months of age when they reach a size that makes them less vulnerable to being entrapped.

The SRG was informed that breeding at all three sea lion colonies had begun and this meant that the resultant offspring are likely to be vulnerable to capture within pots during the latter part of the “whites” and again during the “reds” when fishing returns to the shallows. It was also noted that the current cohort of pups is currently 14 months old and therefore will also be vulnerable to capture in 2005/2006.
SRG members noted that the timing of new pups arriving and becoming vulnerable to capture in rock lobster pots in the absence of SLEDs is unfortunate, and the SRG concluded that the 12-month delay in the implementation of SLEDs into the fishery is regrettable.

Insofar as assessing the risk to the sea lion population(s) resulting from the 12-month moratorium, the SRG formed the view that the risk to the sea lion population(s) in 2005/2006 will be the same risk that existed in 2004/2005. The SRG is of the view that this level of risk will not lead to extinction of the west coast population(s).

Modelling

In view of the delay in the implementation of SLEDs and poor data on sea lion populations, the SRG revisited the prospect of undertaking some modelling work to help understand more definitively what impact the fishery is having on the west coast sea lion population(s). It was also noted that the Marine Stewardship Council certification team continues to question why the SRG has not recommended the use of modelling techniques to better define and understand the impact of lobster pot sea lion mortalities on colonies.

Members reiterated discussion points made during previous meetings that there are simply insufficient data upon which a robust or even reasonable model could be developed. Salient comments made by members included:

- “with the number of assumptions we would need to make you could get a model to tell you what ever you wanted it to”
- “a modelling exercise undertaken on a New Zealand population of Hooker’s sea lion with a significantly larger population size and better data sets still revealed inconclusive results”
- “the potential biomass removal (PBR) exercise already undertaken is probably the best we can do at this point and it reinforced the SRG’s recommended strategy to eliminate mortality”

Dr Campbell informed the SRG that he was a delegate at the recent Alaskan pinniped Conference. While at this conference, Dr Campbell took the opportunity to discuss with relevant experts the possible modelling approaches for the west coast sea lion population. Noting that these were relatively informal approaches Dr Campbell felt that the SRG’s position was validated.

Short-term management strategies

The SRG examined options in regard to short-term measures that might be introduced to mitigate sea lion pup mortalities through rock lobster pots.
**Pot number reductions and time restrictions**

Members were advised that in response to lobster sustainability concerns the management plan would be amended in 2005/2006. There would be a percentage reduction in the number of pots that could be used and time closures during the season. Members considered whether there would be a lessening of the risk as a result of these measures. The SRG advised that they did not regard the new sustainability measures as relevant given that the number of pots that will be able to fish in the vicinity of the breeding colonies significantly outnumbers vulnerable sea lions.

The SRG concluded that the rock lobster sustainability management amendments will not mitigate the risk of sea lion pup mortalities through lobster pots.

**Closed areas**

The SRG discussed the prospect of implementing a regime of closed areas to lobster pots so as to minimise interaction between sea lion pups and pots in the coming season.

The first option discussed was implementation of a one kilometre closure around the central west coast breeding colonies. The SRG concluded that this option would be ineffective when reviewed in the context of the location of known mortalities. In particular many of the known mortalities of sea lion pups have occurred at distances up to 20 kilometres from breeding colonies.

The second option discussed was implementation of a closure that mirrors the area proposed for the mandatory use of SLEDs. The SRG concluded that such a measure would be effective in preventing the capture of sea lion pups in rock lobster pots. However, the SRG noted that for the same reasons that the Minister introduced a 12-month moratorium on the mandatory use of SLEDS (namely lack of industry support) would make the adoption of this option unrealistic as a short-term measure.

The SRG reconfirmed its advice to the management agency that the goal of eliminating sea lion mortality would be effectively addressed through the existing strategy of implementing exclusion devices. To this end the SRG recommends that the rock lobster industry and Department of Fisheries encourage, wherever possible, the voluntary use of SLEDs by commercial fishermen in 2005/2006. Furthermore, the SRG recommends that the rock lobster industry and Department of Fisheries undertake the necessary work (both extension and research) to ensure that SLEDs are implemented for the 2006/2007 fishing season.

**2005/2006 research program**

The Minister for Fisheries’ decision to delay the implementation of SLEDs by 12 months is due largely to uncertainties that remain around the effect that SLEDs have on the catch rate of legal sized rock lobsters.

These uncertainties remain after an initial program of research. It was noted that there was a discrepancy in how the SLEDs were set into the pots including a variance in the
height of the bolt in relation to the neck of the pot. There was also a geographical variation in the effect of SLEDs on lobster catch rates, the significance of which was difficult to assess due to the low number of participants in the trials. SRG members noted that two participants who fished in the northern zone dropped out of the trials early on due to a decline in catch, possibly because the bolts were set too high in the neck of the pot.

SRG members also noted that the trial data indicated:

- different results on the impact on catch between the northern zone and the southern zone;
- different results based on the height of the bolt in relation to the neck of the rock lobster pot; and
- that while further research would be useful, SLEDs do work as a mitigation measure by deterring sea lion pups from entering rock lobster pots.

SRG members advised that communication and monitoring would be essential in any future trials. The existing data showed that a zero mortality outcome supports the use of SLEDs. The SRG expressed some concern about the briefing paper prepared to provide advice on the issue and noted that it did not reflect the testing outcomes that the SLEDs in some cases led to increased catches and in others led to reduced catches producing an outcome that is neutral in the impact on catches. It was recommended that the Department pay particular attention to the wording of any future advice or discussion papers provided to the industry or the Minister.

Members discussed the types of rock lobster pots previously tested and advised that rock lobster fishermen should be encouraged to participate in the trials so that all pot types can be considered.

The SRG was briefed on the elements of a new program of research designed to increase knowledge on:

a. the effectiveness of SLEDs with respect to preventing sea lion mortality; and
b. the impact SLEDs have on the catch of legal sized rock lobster in a range of pots including recreational pots.

The SRG advised that it was imperative that the new SLED trials provided adequate data to support the conclusion that SLEDs will eliminate the bycatch of sea lion pups in rock lobster pots; and that regular feedback to industry and stakeholders on the progression of the trials is imperative.

The SRG noted the advice from the management agency that the height of the top of the exclusion device in relation to the base of the neck of the rock lobster pot would be a key factor in determining rock lobster entry and exit.

SRG members discussed the timing around when the SLED research would be conducted. It was noted that it would be ideal to conduct the trials now with older pups (born during the last breeding season) and again in early January (around the time that this season’s pups start entering the water). SRG members advised that this timing would provide data on each end of the range of the vulnerable age class.
Mr Bray informed the SRG that it was planned to provide the Minister with firm recommendations sufficiently early to allow him to make an announcement in June 2006. This will allow adequate time to communicate the Minister’s decision to industry and stakeholders prior to implementation for the 2006/2007 rock lobster season. Mr Bray also advised that as the 2005/2006 season ends in June, and noting that industry and stakeholders will be fully informed, this will provide adequate notice for fishermen to make the necessary changes to their gear.

SRG members noted that the 2005 Coastal Tour would be a good opportunity to inform fishermen of the process and associated timelines.

SRG members noted that the SLED trials will include recreational pots so that all potential sources of mortality of sea lion pups from lobster pots will be eliminated.

SRG members advised that once exclusion devices were introduced, a monitoring program would be necessary to ensure their continued effectiveness and to determine any behavioural changes in sea lion pups.

The SRG discussed monitoring of the sea lion pup count to identify trends at different islands, and noted the Department’s monthly catch return records are currently being modified to include a compulsory requirement for commercial rock lobster fishers to record any bycatch.

Mr Bray informed the SRG that the Department would monitor fishers during the SLED trials to ensure that the exclusion devices were fitted correctly and to acquire regular feedback.

**Amendment to proposed mandatory SLED area**

Members referred to the fourth document (Additional issues for SRG (1 page background and map)). Dr Campbell informed the SRG that it was proposed that the boundary of the closure area for the mandatory use of exclusion devices be moved to exclude areas with a water depth of 10 – 20 metres.

*Action # 1: Peter Mawson and Dr Nick Gales to provide out-of-session comments to Dr Richard Campbell with regard to the proposal that the boundary of the closure area for the mandatory use of exclusion devices be moved to exclude areas with a water depth of 10 – 20 metres.*

**Meeting report**

SRG members noted that the meeting report would be circulated to members for comments/corrections. Once the detail is agreed the Chair of the SRG will sign the agreed report of the meeting and it will become a public document. The report will be circulated to stakeholder groups and made available through the Department’s website. The report of the SRG meeting will be immediately referred to RLIAC for appropriate action.
Action # 2: Tim Bray to finalise report as soon as possible, circulate to stakeholders and refer to RLIAC.

Summary

SRG members agreed that while there are technical measures that could be taken in the short term to mitigate sea lion pup mortalities through lobster pots, it was highly unlikely due to lack of industry support that these measures would be adopted. The SRG advised that whilst the delay in implementing exclusion devices for the 2005/2006 lobster season is regrettable, the risk to sea lion populations will not alter from the previous year. The SRG advised that, given this situation, the industry and the Department should focus on the objective of requiring the use of SLEDs to be mandatory for the 2006/2007 season. The SRG noted that for this objective to be achieved further research and extension work were required. The SRG urged that this work be undertaken as a matter of priority.

Ron Edwards
Chairman