

# The great escape

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This season the squid fishery has upped their game in their use of Sea Lion Escape Devices (SLEDs) to mitigate interactions with sea lions and other marine mammals. The reason for many of these changes came about through the suggestions of an independently chaired SLED working group. The working group includes representatives from industry, NZ Seafood Industry Council, Ministry of Fisheries, Department of Conservation, expert scientists, and the Royal Forest & Bird Protection Society of New Zealand.

In May 2006 the working group was presented with a report from SeaFIC that showed gaps in SLED performance in the trawl fishery. "After that report, industry agreed to upgrade the self audit, as it seemed the SLEDs on too many vessels needed to be overhauled," says Richard Wells, fisheries advocate, Clement and Associates.

"To rectify the issue the Deepwater Group initiated a total 'recall' of all SLEDs within the fleet. Vessel operators needed to bring their SLEDs to one of four authorised SLED certifiers who ensured that each SLED met specifications and had a distinct serial number," Richard adds. "At that point the industry could confidently say that every vessel carried SLEDs that were in working order and met engineering and design specifications. That information, in the form of compliance 'certificates', was then forwarded to the Ministry of Fisheries."

Beyond ensuring that every vessel had SLEDs up to specification, industry also took time at their November 2006 squid vessel operator's briefing day to discuss how escape devices work. The meeting was attended by representatives of about 90 per cent of all operators, along with MFish representatives. "It was a fairly frank discussion about the pros, cons and myths around SLEDs," says Richard. "Escape devices are an engineering and fishing gear design feat that provides an escape route for marine mammals and turtles from trawl nets. We felt the need at that meeting to re-emphasise how and why SLEDs work for sea lions and discuss the advantages of employing them."

While similar devices are used around the world to allow marine mammals and turtles to escape trawl nets, in New Zealand SLEDs have been particularly developed for sea lions in the squid trawl fishery. If all trawl vessels have compliant SLEDs in place (and certain other MFish operational conditions are met) the number of tows allowed within the squid fishery can increase by 20 percent. "That's a static number until we can prove that the number of sea lions that pass through SLEDs and sur-



Photo: Deepwater Group and Australian Maritime College.

vive is higher than government Minister's have decreed," says Richard.

One way the SLED working group hopes to learn more about sea lion behaviours around trawl nets and escape devices is by filming the species: a technical challenge that has tested even Kiwi ingenuity this squid season. "The working group has agreed to continue with at-sea feasibility testing of the camera gear to sort out issues with hardware reliability and deployment. If we can get these sorted then we can design a full and rigorous research proposal to provide us with quality information," says Jane Gunn, chair of the working group. "But as past failures have shown, there are no off-the-shelf solutions for this type of filming in these conditions, so we are still in the testing phase."

In the meantime, and as usual, all vessels in the fishery are reporting on sea lion interactions and number of tows undertaken twice a week. This information is shared with the operators and must also be passed on to the Ministry of Fisheries who monitor the fishery extremely closely. Any captures need to be reported immediately. Once a capture is reported, the Deepwater Group works with the operator to gather information about the circumstances around when the capture occurred.

This level of controlled management in reporting, much improved Ministry of Fishery and fleet operator communication, compliance to SLED specifications, and detailed analysis of captures is leading to better real-time management of this priority issue in the fishery. □



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