Code of Practice for Reducing Whale Entanglements

In the Cockburn Sound Line & Pot Fishery and Octopus Fishery

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The Cockburn Sound Line & Pot Fishery and the Octopus Fishery have developed this Code of Practice in conjunction with the Department of Environment and Conservation (DEC) and SeaNet Environmental Extension Service, to reduce interactions with whales in Western Australian waters. Through a consultative process involving a range of stakeholders it was recognised that a Code of Practice was necessary. The Code of Practice has been developed with specific strategies aimed at minimising entanglements of whales and other marine life in octopus pot lines

The Code of Practice will also help the industry to make progress against the following government and management considerations:

- Fishing activities in which fishing gear is set, particularly methods that use trailing ropes or tethered buoys, is identified as a potentially threatening process, particularly for migrating Southern Right and Humpback Whales which are protected under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* and the *Western Australian Wildlife Conservation Act 1950*
- Whale entanglements are recognised as a management issue by Western Australian Octopus Fishery Management.
- Whale entanglements and the need for disentanglement training are recognized as a priority issue by Department of Environment and Conservation (DEC) and the Department of Sustainability, Environment, Water, Population and Communities.

Fishery Description – octopus fishery

The octopus fishery in Western Australia targets *Octopus cf. Tetricus*. In the northern parts of the fishery *O. Ornatus* and *O.cyanea* are occasional captured, while *O.maorum* is captured in the southern and deeper sectors.

Fishing activities targeting octopus in Western Australia can be divided in four main categories. The West Coast Rock Lobster Managed Fishery (WCRLF) harvests octopus as a by-product, and currently accounts for the majority of total octopus landings. Unbaited or passive (shelter) octopus pots are used to harvest octopus in the Cockburn Sound (Line and Pot) Managed Fishery (CSLPF). The Developmental Octopus Fishery (DOF) uses both passive shelter pots and active (trigger pots) traps to selectively harvest octopus.

Octopus caught in the WCRLF are restricted to the boundaries of that fishery (between latitude 21° 44' S and 34° 24' S). Octopus catch in the CSLPF is limited to Cockburn Sound. Octopus caught in the DOF are limited to the boundaries of the developmental fishery, which is an area bounded by Coral Bay in the north and Esperance in the south with each Exemption Holder restricted to a section of the coastline that excludes the others[1].

Fishery Description – Cockburn Sound Line & Pot Fishery

The Cockburn Sound Line & Pot Fishery is restricted to the inner waters of Cockburn Sound, from South Mole at Fremantle to Stragglers Rocks, through Mewstone to Carnac Island and Garden Island, along the eastern shore of Garden Island, and back to John Point on the Mainland.

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Commercial fishing effort is managed under input controls, via limitations on vessels, the number and specification of traps able to be used. Seasonal and daily temporal restrictions also apply. Professional fishermen harvest crabs once they have reached 130mm carapace width for male and 135mm for female, this is well above the size at sexual maturity (<100mm carapace width), allowing female crabs to spawn at least once before entering the fishery and ensuring an adequate breeding stock is left untouched. The fishery was closed in 2006 due to a low stock abundance resulting from a combination of biological, environmental and fishery dependent factors. The fishery has since reopened for the 2009/10 season[2].

Environmental Management

The recommendations that have come from the Commonwealth Department of the Environment and Water Resources (DEW), *Assessment report of the Western Rock Lobster Fishery,* have been used to highlight areas requiring attention in the Octopus Fishery.

Information requirements - DEW Strongly recommends the continual monitoring and collection of information on all cetacean interactions in the fishery.

Assessment - The submission indicates that cetaceans may be at risk of entanglement in pot lines. It states that the increased level of interaction in the fishery may be related to two factors: the movement of fishers into shallower waters without shortening float lines; and the southward and northward migration of the humpback whales.

Management response - The report states that when fishers move to shallow waters the lines should be shortened to account for the change in depth and avoid excess line suspended in the water column or floating on the surface.

Conclusions - DEW recognizes that the Western Australian Department of Fisheries (WADF) are working with industry and DEC to address the issue of whale entanglement in the fishery and encourage WADF, in conjunction with industry and the relevant officers in DEC, to review the management strategies in place to minimize these interactions. Particular attention should be given to the overlap between the fishing season and whale migration and the activities of fishermen when operating in shallow waters.

[1] Sourced from Hart, A. and Murphy, D. 2010. Octopus Fishery Status Report. In: State of the Fisheries and Aquatic Resources Report 2009/10 eds. W.J. Fletcher and K. Santoro, Department of Fisheries, Western Australia, pp 90-94.

[2] Sourced from Johnston, D. and Harris, D. 2010. West Coast Blue Swimmer Crab Fishery Status Report. In: State of the Fisheries and Aquatic Resources Report 2009/10 eds. W.J. Fletcher and K. Santoro, Department of Fisheries, Western Australia, pp 54-61.

Whale Ecology and Management

In Western Australia there are some whale species more vulnerable due to their migratory patterns. The most vulnerable is probably the Southern Right Whale (*Eubalaena australis*) listed under the *EPBC Act* as an endangered species. Other species likely to be affected in WA waters are migrating Humpback Whales (*Megaptera novaeangliae*) and the critically endangered Blue Whale (*Balaennoptera musculus*). The characteristics of some species that may lead to vulnerability are:

Southern Right Whale:

- Slow swimming, migrates through coastal waters, breeds inshore in coastal waters during winter between May to October
- Has rough callosities on head and very long baleen, which could increase the risk of entanglements
- Difficult to disentangle due to uncooperative nature

Humpback Whale:

- Migrates Northward through Western Australian waters during late May to August, returning Southward, September to December
- Slow swimming, has very long flippers with knobby leading edges

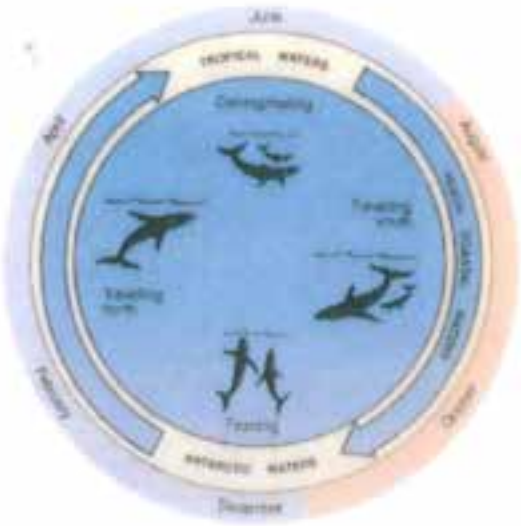


Figure 2. Annual whale migratory routes. Artwork courtesy of DEC

Blue Whale:

- Fast streamlined whale; feeds in West Australian waters from December to May
- Danger of entanglement in baleen or flippers while feeding
- Size and power could make it very difficult to rescue.

Entanglement of cetaceans with fishing gear poses a serious threat to some species, particularly those that are endangered. The causes of entanglement in Australia are varied but records of the types of materials involved include lobster pot lines and octopus lines. Wildlife managers believe that the likelihood of further entanglements occurring in WA will increase as whale numbers increase.

The scale of whale entanglement in fishing gear varies from state to state. In Western Australia a total of 33 whale entanglements between 1990 and 2004 have been recorded. Twenty three of these entanglements (relating to Humpback Whales) have involved Western Rock lobster pot lines. On the South Coast, one Southern Right Whale was entangled in King George Sound, including one dead Humpback found washed up on the Beach. The remaining entanglements involve other fishing gears.

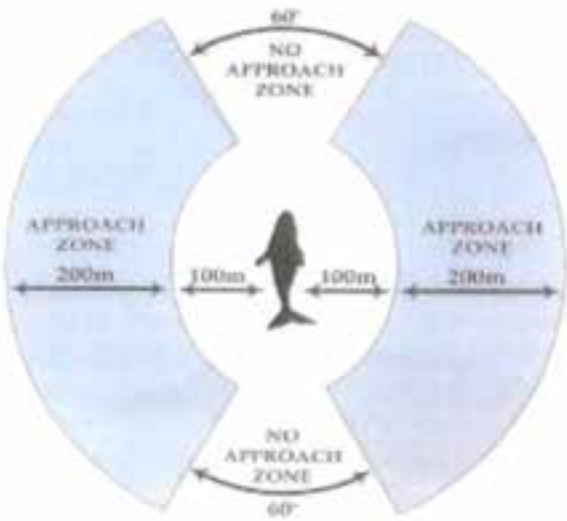
Entangled Humpback whale. Photo courtesy of DEC

There is a particular concern about whale entanglements because of their size. Whale entanglements present complex and often dangerous situations that require specialist skills and training if the whale is to be released unharmed. In addition, there is increasing public interest and concern about such events when they do occur.

Fishing industry practices that reduce the risk of whale entanglements

Fishermen should:

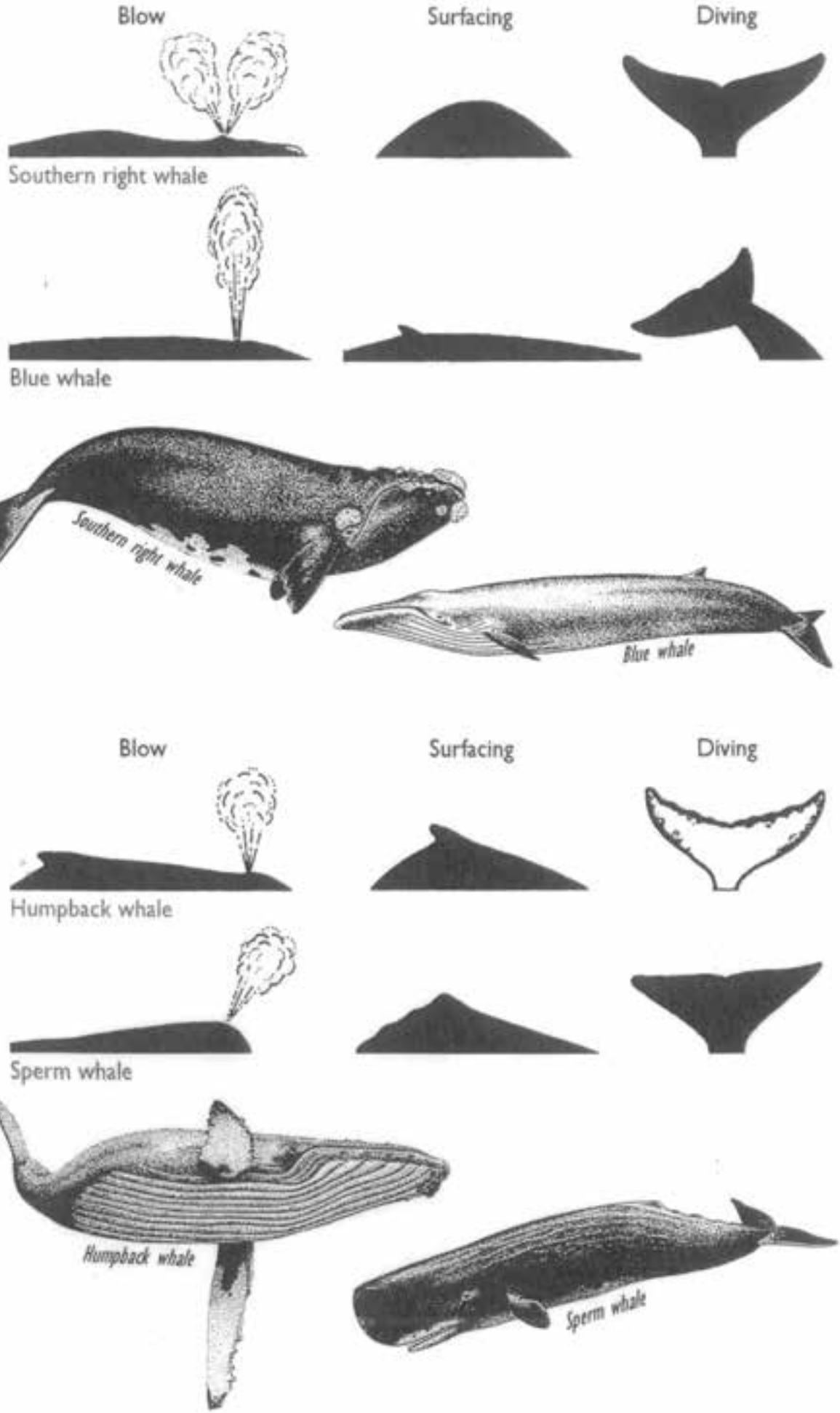
- Remain vigilant during the month of June
- Avoid excessive slack in pot ropes, particularly during the start and finish of the fishing season. Ropes should be adjusted to a length appropriate to the depth and strength of tide being worked, especially inshore. Excess slack in pot ropes can be coiled and tied close to floats. Slack should be limited to enough rope to allow for recovery and to commence hauling safely (Dog bone / shanking);
- Where possible avoid setting pots in clusters;
- Regularly check pots, as per standard fishing practice. The Disentanglement teams have a greater chance of success if the entanglement is discovered quickly;
- **Do Not** leave pots in the water if not fishing for prolonged periods. Pots should be retained on board or returned to shore when they are not fishing for prolonged periods;
- Report entanglements as soon as possible. Rapid reporting ensures entanglement response teams have the best possible chance of successfully disentangling whales. Fishers should monitor entanglement situations, with due regard for the safety of the vessel and the whale, until assistance teams arrive;
- Keep up to date contact details aboard; adopt a cooperative approach to avoiding entanglements and responding to entanglements when they occur. Fishers can voluntarily participate in Department training programs for involvement in disentanglement operations. This training will ensure that fishers are aware of procedures and are familiar with disentanglement team personnel. **The readiness, local knowledge and vessel handling skills of fishers are beneficial to disentanglement operations. Fishers should not attempt disentanglement of whales without the assistance of DEC;**
- Collect any abandoned / lost or cut pot lines, rope or fishing gear
- Investigate new technologies that may reduce entanglement



Recommended approach distance.
Artwork courtesy of DEC

A pot line shortened for a shallow water set

Whale identification chart



Illustrations by Ian Dickinson, from Whales & Dolphins of Western Australia, DEC, WA

Disentanglement program

The Department of Environment and Conservation is dealing with the entanglement through the 'kegging' technique in use by Conservation officers in Western Australia for several years. This technique was developed by the Centre for Coastal Studies in eastern USA. The disentanglement training program provides a standard operating procedure for attaching long lines and heavy buoys to the whale to slow it down, tire it out and keep it on the surface, allowing trained personnel to approach more safely and attempt to remove the entanglement completely.

Disentanglement procedure. Photo courtesy of Kevin Crane

The entanglement is cut away using specialised knives attached to long poles. It is important to remove the rope not just free the animal. This procedure is being adopted by all Australian state government agencies.

The rescue operations are conducted according to a recognised response system used for emergency situations in Australia. Fishers are also encouraged to participate in future training programs.

While disentanglement provides a means for dealing with some individual incidences as they arise, the best 'solution' to the problem also involves treating it at the source. This can be done by finding ways to minimise risk of entanglement through a range of means as outlined in this protocol.

Benefits of the Code of Practice

1. As a conservation measure to assist in protecting whales from entanglement
2. The profile of the octopus fishery can be improved by:
   - their direct involvement in the reduction of whale entanglements by acknowledging best fishing practices at industry level; and
   - their involvement in the disentanglement program.
3. Avoiding loss of gear and catch from lost octopus pots.
4. An established disentanglement network. The need exists for fast reporting of incidents so the disentanglement process can begin.

Important contact information

To notify DEC of an entanglement call:
0419 947 708

Wildcare – 08 9474 9055 or

General enquiries – 08 9334 0292