Workshop 7: Preventing the spread of depredation and the role of discard feeding in the spread of depredation
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This workshop focused on understanding why depredation behaviours develop over time, and the factors that may increase the rate at which they spread throughout an area. There was a consistent message throughout this workshop that changes in human behaviours (ie the way that fisheries are conducted) will be the only way to avoid or reduce the spread of depredation. Innovative fishing methods will be required in areas where depredation is already a serious problem (as discussed in the workshops on gear modifications, deterrence and acoustics).

Discards from fishing vessels include undersize fish, non-targeted species, and offal (internal organs etc. that are removed from the fish before they are processed).

What role does discard feeding play in the spread of depredation?
The role of discard feeding was somewhat controversial in this workshop. Some fishermen felt it helped to stop whales from feeding directly on the catch. However, the general consensus was that even though discard feeding may help to avoid depredation in the short term, over the long term it was likely to increase depredation as whales became accustomed to approaching vessels and associating them with food.

The release of undersize fish presents some challenges if fishermen are trying to follow a policy of not feeding the whales. In the case of black cod it was thought that they generally were able to swim away so quickly that they were not a significant source of food for whales.

In some areas, grinder pumps are used to process offal before it is discarded, which likely reduces feeding by sperm whales, but killer whales are able to feed on ground offal. In Australia offal may not be released around the gear, and there is a strict protocol to ensure that it sinks quickly. In any area, it would be best to dump offal all at once, in order to reduce the number of possible feeding (and learning) opportunities by whales.

There is also a potential 'ripple effect' associated with discharging offal: species other than killer and sperm whales may feed on it and come to rely on its availability. This has happened in Canada where bald eagles began to rely on offal from the shrimp fishery, and when this source of food ended, the eagles attacked great blue herons causing significant declines in the blue heron population.

Which areas are vulnerable to whale depredation beginning?
- British Columbia (BC) longline fishery for sablefish (black cod)
- BC salmon troll fishery (just beginning)
- BC sportsfishery (just beginning)
- BC halibut fishery
- Southeast Alaska halibut fishery
- South Australia fisheries (due to their proximity to Tasmania, where killer whale depredation is a large problem)
- Denmark Strait, between Greenland and Iceland
- Others?
- In Australia depredation is only a problem in Tasmania, but it could spread to South Australia. Very little is known about killer whales in these areas.

Specific advice to fishermen to prevent depredation from spreading

- Don't feed the whales
- Stop fishing if possible if whales appear. It is especially important to not haul gear while they are in the vicinity
- Establish ways for fishermen to communicate with each other on the fishing grounds re: the presence of whales in the area (eg. speakers on deck)

General steps that should be taken in British Columbia to prevent depredation from spreading

A public education program is essential. Information and guidance on how to interact with depredating whales could be included in sportsfishing brochures that are issued as a part of government licensing programs. Commercial trade associations could also include information in their magazines. Encouraging the salmon troll and sports fishery to work together would benefit both. An outreach educational program that targets fishing lodges could be very useful in reducing the spread of depredation.

Why doesn't depredation occur everywhere?

Both killer whales and sperm whales are relatively slow to change their behaviours, although once they do change, the behaviour can spread quickly through the population. This is especially so for killer whales, and it is likely that sperm whales change their behaviours more slowly.

The motivation for whales to change their behaviours is reduced when prey is abundant. When favoured prey become less abundant, there is increasing motivation for the whales to change.