

Lifeforce Marine Wildlife Conservation Programs



Photo Captions: Start Top left Clockwise

1. Over fishing and entanglement in fishing nets and other debris is a threat to orcas.
2. Boaters should be aware of and adhere to whale watch guidelines.
3. Boat noise interrupts foraging, navigating, rest and communication.
4. Pollution such as PCBs and dioxins affect immune and reproductive systems.
BC orcas are the most toxic of all animals worldwide.

Lifeforce Foundation

Lifeforce Founder Peter Hamilton has worked in the field of ecology and animal behaviour since 1978. He has designed various methods to enrich the lives of captive animals by mimicking the species' natural environment. He published two peer-reviewed papers on this subject.

His studies of "The Behaviour and Travel Patterns of *Orcinus Orca* (Southern Community Killer whales)" have been conducted under research permits from the Canadian Department of Fisheries and Oceans (DFO). Research findings from this study were reported in Lifeforce's Orca Field Guide.

In 1982 Lifeforce helped stop another capture of the Southern Community near Victoria, BC. An estimated 48 orcas in these families had been taken in the late 60s and 70s. These captures not only resulted in the loss of the 48 orcas but has also created a very low birth rate. The abnormal age and sex ratio will take decades to return to normal.

Mr. Hamilton wrote a book entitled "Orca - A Family Story" in 1993. Methods of orca transport were discussed in this book and were praised by the responsible US government agency. It could have been used in the plan to reunite Luna with his family. In 1997 Mr. Hamilton designed and wrote the "Whale Watching Guidelines for Southern BC and Washington" in consultation with DFO and NGOs.

Lifeforce has been conducting Marine Life Programs for over fifteen years. Our programs increase our knowledge of orcas and contribute to the development of strategies for Orca Recovery Plans.

Lifeforce Foundation's Contribution to the Orca Recovery Process.

Many of Lifeforce's Marine Life Program objectives are to conduct programs in cooperation with government plans to mitigate any harm to marine wildlife populations and their habitats.

Disturbance due to vessel traffic



- **The Lifewatch Boater Awareness Program** was the first in Southern BC to conduct monitoring activities to stop vessel traffic disturbances. We distribute **Whale Watch Guidelines** for compliance among commercial and recreational boaters. This was the first area specific one developed through consultation with government and others. We are helping to mitigate boat harassment by education and reporting whale watch guidelines violations to appropriate agencies.

- Liferforce is conducting studies:
 - a) **“The Behaviour and Travel Patterns of *Orcinus Orca* (Southern Community Killer whales)”**
To collect data regarding boat traffic impacts on behaviour and travel patterns in order to secure **No-Whale-Watch zones, marine protected areas, improvements in commercial whale watching activities and improvements in marine mammal protection regulations.**



False killer whale following Liferforce boat.

- b) **“The Behaviour and Travel Patterns of a Lone False Killer Whale”**
To collect data, including Liferforce studies of a lone false killer whale, that will contribute to our knowledge of lone dolphin behaviour.
- Liferforce hopes to work with others to develop a **Model Whale Watching Plan**. This feasibility study would look at changing the face of present whale watching activities. It would replace the haphazard, prolonged presence of commercial boats with organized Whale Watching Zones and No Whale Watching Zones. The travel patterns of the Southern Community are very predictable and would support the creation of designated water zones for whale watching. These zones would be marked by GPS and land coordinates. The zones would be approximately 2 miles apart. Commercial boats would wait within the zone for the orcas. The number of boats would be limited and the number of zone visits restricted. This model would also incorporate **Ethical Eco-tourism Standards** by training and licensing operators. Land-based whale watching would also be urged and promoted.

Disturbance due to contamination by anthropogenic activities





- Lifeforce provides a fully equipped **Marine Wildlife Rescue Mobile Unit** and service for stranding and other emergencies. Our equipment includes cetacean pontoons to refloat dolphins.

- Lifeforce is conducting studies:

a) **Orca Reaction to Benign, Novel Sound Stimuli: Implications for Reuniting Orcas and Developing Strategies to Prevent Exposure to Environmental Hazards**

This study looks at the development of innovative methodology to reduce the harm to orcas caused by anthropogenic activities. Lifeforce proposes to look at the responses from *Orcinus orca* to safe levels of novel sound stimuli. The purpose is to:

1. To determine if orcas, such as Luna and L pod, could have been reunited by using methodologies such as boat following and lead sound signals.
2. To determine if benign, novel sound stimuli can be used to alert and/or change the direction of endangered orcas to stop exposures to hazards such as oil/chemical spills.



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