

Procedures to Minimise the Risk of Transferring Aquatic Diseases Through Diving and Fishing

The purpose of this protocol is to set out some simple procedures that will minimise or prevent the spread of diseases (including, but not limited to Abalone Viral Ganglioneuritis) in the marine environment through activities associated with abalone fishing. Key areas targeted include dive equipment, boats and tanks used to handle and hold abalone whilst on board.

These include but are not restricted to:

- Diving equipment including wetsuits, fins, masks, weight vests, hookah gear and other abalone harvesting equipment (Ab Irons and knives etc.)
- Fish bins and catch bags
- Boats, including hulls and decks, deck equipment
- Abalone holding tanks and wet wells
- Pumps and pipe-work associated with holding tanks
- Deck areas
- Gum boots and wet weather pants etc.
- Transport vehicles and boxes

The key to any of the operations described in this document is to ensure that all organic material is cleaned from surfaces. The viral cause of Abalone Ganglioneuritis is relatively short-lived outside the host or organic material and therefore hygiene procedures are aimed at thoroughly cleaning surfaces and removing organic material that may protect and enhance the survival of this virus.

START YOUR FISHING TRIP WITH A CLEAN BOAT AND EQUIPMENT

The decontamination process involves a combination of physical and chemical procedures to remove soiling and inactivate potential pathogenic organisms.

It is recognised that dinghies and motherboats vary in many ways and this protocol has been developed to provide divers and skippers with an understanding of some basic cleaning and disinfecting procedures that should be adopted on their vessels as standard operating practices.

The following activities are recommended at the end of each day of diving and prior to moving to a different location or returning to port.

Decontamination of wetsuits and other dive equipment

- **Catch bags** that have come into contact with abalone and other gear such as gloves, Ab irons, knives and measuring devices should be soaked in a fish bin containing soapy freshwater for 30 minutes and then rinsed.
- **Wetsuits** should be washed with a specialised wetsuit wash preparation and freshwater, but if they are not readily available a mild liquid soap or shampoo will do just as well (get into a warm shower and soap down in your wetsuit.)
- Tanks, weight vests, regulators and masks that have not come in contact with abalone can be washed down with soap-free freshwater

Decontamination of people

- After diving for abalone, ensure that all people who have come in contact with abalone wash their hands with soap and water.
- Thoroughly clean waterproof clothing with soapy freshwater, rinse and leave in the sun to dry.
- On return home, ensure that work clothes, including gumboots and footwear, are washed.

Decontamination of vessels.

Dinghies

- Decks and equipment should be **regularly hosed down** to avoid the build up of dirt and organic material. The use of detergents and high pressure sprayers will greatly enhance this process.
- **Catch bags, droplines** and any other equipment in contact with abalone should be soaked in a fish bin containing soapy freshwater for 30 minutes and then rinsed and hung out. The detergent mix should be refreshed daily.
- Dinghies should be washed with wash with fresh water and drain on land where waste water will not return to the marine environment.

Motherboats

Cleaning should start from the highest point and work down. Time should be taken to check the exterior of the hull after cleaning.

- Decks, equipment and superstructures should be thoroughly cleaned down as described above.
- Particular attention should be taken to ensure areas where abalone are handled or packed are targeted to remove any fouling and organic material.
- If possible rinse with fresh water and a non-foaming detergent.
- Dinghies stowed on deck for return to port should be thoroughly washed with detergent to remove all dirt and organic material. On return, re-wash with fresh water and drain on land where waste water will not return to the marine environment.
- After unloading steel baskets and crates from the well should be thoroughly cleaned and any traces of gross contamination removed. If possible allow all bins and crates to dry completely before re-use.

When operating in the Northern zone it is recommended that the well is pumped dry after cleaning has been completed on commencement of the return trip. After unloading, add detergent to the water and material left in the well. Do not discharge this water until well clear of the coast and away from abalone habitat.

FINISH YOUR FISHING TRIP WITH A CLEAN BOAT AND EQUIPMENT

Appropriate Cleaning Agents

Compounds recommended for decontamination include:

Detergents

Detergents are normally a complex mixture of compounds that help to remove and disperse dirt. Detergents should be used for the removal of gross fouling and organic matter, although this will assist with removing the virus it may not kill or inactivate the virus. The following detergents are suitable for general cleaning purposes:

- **Boats:** Suitable detergents include those used for washing trucks or specifically designed for cleaning boats are available from a number of suppliers. These compounds are not classified as hazardous and are normally bio-degradable;
- **Wetsuits and other diving equipment:** There are specialised wetsuit wash preparations, but if they are not readily available a mild liquid soap or shampoo will do just as well;
- **Fish bins, catch bags and nets:** Any of the above detergents used in fresh water should be suitable for soaking heavily soiled equipment;
- **People:** Soaps should be used to wash hands, laundry detergents to wash clothes.

Disinfectants

Disinfectants can be used specifically to inactivate pathogens such as viruses after the item has been cleaned (see above). Suitable disinfectants include:

- Peracid disinfectants such as Virkon™;
- Hypochlorite compounds such as bleach, sodium hypochlorite or calcium hypochlorite.

Equipment

Most vessels will already have much of the necessary equipment on boards such as brushes, brooms and scrapers. In addition the following items should be considered.

- Misters and low pressure sprayers – useful for applying detergents and disinfectants to surfaces.
- High volume pumps – particularly useful for rinsing as they are good for thoroughly wetting equipment.
- High Pressure Water Cleaners (HPWC). Useful for all stages of cleaning and disinfection. Highly efficient at dislodging most types of gross soiling.

Additional Information on Decontamination or Biosecurity Issues

Please call: **Andrew Sharman (03) 6233 3512 or 0408 131 204 or
Kevin Ellard (03) 6233 6828 or 0418 131 212**