

Procedure - Oil/Chemical Spill Wildlife Response – Transporting Wildlife

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1. Application / Scope

Any wildlife response which requires the capture of animals is likely to require a means of transporting them; initially to triage and first aid stations, then washing and or rehabilitation facilities if these are located away from the spill site, and later to release sites once it is safe to return the animals to their natural habitat.

Transport can be very stressful for wild animals and stress can be minimised by good planning to ensure that suitable containers and adequately equipped vehicles are on standby which will allow for optimum conditions during transport.

It is common for the general condition of animals to deteriorate during transport and survival rate is likely to be improved if field stabilisation procedures have been carried out beforehand and animals have been placed in appropriate containers and left in a quiet, warm and well-ventilated area to await transport.

This procedure assists personnel involved in the transport of wildlife during an oil or chemical spill and does not relate to any other aspects of the wildlife response which are addressed in separate procedural documents. Refer to other procedures listed at the end of this document

2. Abbreviations / Definitions

- Hypothermic – having an abnormally low body temperature
- Hyperthermic – having an abnormally high body temperature

3. Resources / Equipment

- Vehicles with separate driver/animal compartments, trucks, vans, boats and aircraft may all be required depending on the circumstances. Vehicles should be able to be kept at a suitable temperature and with adequate ventilation eg refrigerated pan techs.
- Heavy lifting equipment may be required depending on the species being transported
- Appropriate personal protective equipment (as determined by the risk assessment and based on the Material Data Safety Sheet for the particular substance)
- Suitable containers or crates – depending on species eg with adequate ventilation and packed in such a way as to allow adequate ventilation
- Turtle lifting mats, whale lifting mats
- Pens
- Masking tape
- Scissors
- Disinfectant
- Thermometers to determine air temperature of vehicle compartments
- Access to washing facilities for vehicles

4. Warnings

- Wildlife can be aggressive and personnel required to handle animals in the course of transporting them should be trained in animal handling and provided with suitable protective equipment. Refer to the Safe Work Method Statement/Job Safety Analysis – [Handling of Animals](#). Personnel handling wildlife must have a current Tetanus vaccination.
- In general, mammals have more ability than do birds to damage humans by biting, clawing or kicking. Transporting mammals, particularly larger species, is therefore challenging, especially if personnel are required to handle them. Training, experience and the correct equipment are all important if personnel are to handle them without injury to themselves or the animal.

- Affected animals may emit chemical/toxic fumes. Personnel loading/unloading animals should wear appropriate personnel protective equipment as determined by the risk assessment for the task.
- Personnel should ensure adequate ventilation of holding areas at all times and should not remain in confined, unventilated spaces with affected wildlife.
- Spread of disease is possible from animals to humans when large numbers of animals are confined in close proximity to each other. Any animal that is suspected of carrying an infectious disease should be immediately quarantined from others. It is essential that all personnel are informed of quarantine requirements and that appropriate signage is available. Procedures and facilities for disinfecting clothing and equipment should be set up early in the response and footbaths with antiseptics should be set up outside buildings housing wildlife. These areas should be restricted to authorised personnel only and should display appropriate signage to that effect. Separate and dedicated clothing, gum boots, gloves and other personal protective equipment should be also available.
- Personnel with impaired immune systems and those with colds/flu should not be permitted near affected wildlife.

5. Procedure

5.1 Responsibilities

- The First Aid Crew, at the triage location or transport terminal, will identify which animals are fit for transport.
- Transport Crews will be responsible for transporting animals from the rescue site to treatment facilities and from treatment facilities to release sites.
- Transport Crews will ensure that a Wildlife Rescue and Release Form, detailing capture and treatment information, accompany each animal.
- Transport Crew leader must advise the receiving personnel at the destination of the estimated time of arrival of each batch of animals and the number of animals.

5.2 Vehicles

- While road vehicles are used most often, boats or aircraft may be suitable in some circumstances. **Note:** personnel with appropriate licences are required to drive the vehicles.
- If a vehicle has been used for transporting domestic animals, it should be cleaned and disinfected before being used for transport of wild animals.
- Vehicles transporting affected animals should be cleaned daily or more frequently if required.
- Closed vehicles are preferred but if open-sided vehicles are used, all containers must be securely attached to the vehicle with ropes or straps before transportation starts. There will be a need to compensate for cold external temperatures and wind chill if an open vehicle is used.
- Transport vehicles should have adequate ventilation for both humans and animals and have controllable temperatures.
- Ensure that exhaust fumes cannot enter the area where animals are held.
- Minimise stress by avoiding talking and eye contact with the animals etc.
- Veterinary advice should be sought if the condition of a casualty deteriorates suddenly while in transit.
- Communication should be maintained between Transport Crews and the receiving facility, so that the expected departure and arrival times are known.
- Noise in transport vehicles should be minimised to reduce stress; transport time in very noisy vehicles (e.g. helicopters) should be minimised for the same reason.

5.3 Transporting birds

5.3.1 Containers for birds

Transport containers suitable for birds include:

- Airline shipping kennels.

- Pet carriers. Cover the wire door and any windows with a towel to reduce visual stress. Consider the risk of feather damage from wire doors.
- Plastic pet boxes. Rubber matting plus towels are required on the floor; towels alone will slip on the plastic.
- Cardboard boxes with ventilation holes. Cardboard boxes are suitable for most small species but risk the base becoming saturated if used for larger species and may disintegrate due to oil absorption, and are not suitable for re-use following oil contamination.

DOs

- When choosing a container consider the safety of the bird during transport, and the safety of the bird and the handler when the bird is being removed from the container at its destination. Handlers must be suitably trained or experienced.
- Containers need to be well-ventilated. Ventilation holes must be small enough to prevent birds stabbing at personnel through the holes.
- Containers should be large enough to allow the bird to stand and orientate comfortably but small enough to prevent the bird from spreading its wings.
- Containers should be well padded inside with sheets, towels or absorbent pads to absorb oil. The substrate must be non-slip and non-abrasive. Rubber matting covered by one or two towels is appropriate.
- Solid-based containers should be used for transport of birds that have limited mobility on land.
- Diving species require extra padding in transport boxes to avoid injury to the keel or hocks during transport.
- Re-usable containers should be cleaned after use and sprayed with or soaked in disinfectant solution before re-use. Outdoor steam cleaning or cleaning with a high pressure hose is recommended.

DON'Ts

- Containers which are **NOT** suitable for transporting birds include wire cages (which may cause feather damage) and Hessian bags (which may cause eye damage).
- Boxes should **NOT** contain sawdust, hay, straw or similar materials due to risks of secondary infections. Newspaper quickly becomes slippery and, even when dry, does not provide a good footing for many species.
- Hessian sacking and frayed towels are not suitable as substrates inside containers, as the birds may get caught in the weave or on loose threads.

5.3.2 Birds awaiting transport

- Containers holding birds should not be left unattended.
- Containers should be placed in a safe, quiet location, away from noise and activity, above the high tide line and away from oil vapours.
- Containers should be protected from temperature extremes and must not be left in direct sunlight. Containers should be placed sufficiently far apart that adequate ventilation is maintained.

5.3.3 Loading and unloading birds

Considerations when loading and unloading birds into and from transport vehicles:

- Ensure personnel use safe manual handling techniques. This may require the use of heavy lifting equipment depending on species, numbers and the availability of personnel.
- Load birds in accordance with the order they may need to be unloaded at their destination
- Allow sufficient space between containers to allow adequate ventilation
- Do not stack containers
- Arrange containers (especially heavy containers) in a configuration that provides access for handlers

See Safe Work Method Statement – [Manual Handling - Stores](#).

5.3.4 During transportation

- In general birds should be transported one individual per box. Where necessary, non-aggressive species or chicks may be transported with two or three birds in a suitably sized container.
- Birds should not be wrapped up as this may lead to overheating.
- Containers should be properly closed with secure lids or tops to prevent birds escaping during transport.
- Containers should provide protection from the weather, direct sunlight and other animals. They should also provide a visual barrier to reduce stress. Keeping birds in the dark will generally have a calming effect (reducing stress) and reduce preening (and therefore ingestion of more oil).
- Containers should be secured at least 3.75 to 5.0 cm apart to ensure adequate flow of air through side vents, not just through any air holes in the tops of the containers.
- Temperatures of 25 to 28°C should be provided. Temperatures should be adjusted depending on the condition of the birds: increase heating if birds are shivering, reduce temperatures if birds are panting.
- Containers should be out of direct sunlight during transportation. Even in an air-conditioned vehicle, birds may overheat if boxes are in direct sunlight.
- Periodic monitoring is required on journeys of more than one hour. Monitoring for overheating is required if the ambient temperature is greater than 21°C. Hyperthermia may occur when, for example, containers of birds are crowded onto a vehicle left parked in the sun.
- If signs of heat stress are seen, such as open-mouth breathing, additional ventilation holes may be required or the number of birds per container must be decreased.
- Oral fluids should be given every two to three hours on journeys longer than four hours.
- Monitoring for chilling is required in cool or cold conditions. Part of the container may be draped with a cloth such as a towel or blanket to provide some protection from cold but adequate ventilation must be maintained.
- Containers should be labelled with the ID number, priority code, date, time and location of capture, and the species (if the bird has been identified).

For more detailed information on the transporting of oiled birds see the Field manual – Rescue and Rehabilitation of Oiled Birds, Erna Walraven, June 2004. Copies of the manual are available in the [Oiled Wildlife Response Kit](#) which will be made available at the spill site.

5.4 Transporting seals and other mammals

5.4.1 Containers for mammals

- Containers for mammals can be made from wood, metal or plastic but need to be strong and designed for safe transport while allowing for carriage of heavy animals by hand. They also need to be well ventilated and provide good visual and easy manual access for handlers.
- Containers should provide protection from the weather, direct sunlight and other animals. They should also provide a visual barrier to reduce stress.
- Plastic airline kennels may be used for transport of animals up to 20 kg.
- For animals over 20 kg, lightweight cages (e.g. aluminium) are preferred, with vertical sliding doors at both ends and lift points for carrying and if possible for winch attachment.
- Animals should be transported one to a cage. Mother and pup should preferably be in separate containers but should travel next to each other.
- Immature animals may be transported with more than one animal in a cage if necessary.
- Containers should be properly closed with secure lids or tops to prevent animals escaping during transport.
- Containers should be labelled with the identification number, priority code, date, time and location of capture, and the species (if the bird has been identified).

5.4.2 Mammals awaiting transport

- A period of rest prior to transport may improve survival.
- For hyperthermic individuals, cooling may be initiated by gently spraying with water, or by placing ice cubes on the top of the cage, so that melting water will drip onto the animal.
- Hypothermic animals should be placed in a sheltered location out of the wind, while ensuring that good ventilation is maintained to minimise inhalation of chemical fumes.
- Oiled, stressed and injured animals have reduced thermoregulatory capacity and a hypothermic animal may become hyperthermic after excessive handling, inadequate ventilation, if the cage is placed in sunlight without appropriate shading or if it has a seizure.

5.4.3 Loading and unloading mammals

Considerations when loading and unloading mammals into and from transport vehicles:

- Ensure personnel use safe manual handling techniques. This may require the use of heavy lifting equipment depending on species, numbers and the availability of personnel.
- Load animals in accordance with the order they may need to be unloaded at their destination
- Allow sufficient space between containers to allow adequate ventilation
- Do not stack containers
- Arrange containers (especially heavy containers) in a configuration that provides access for handlers

See Safe Work Method Statement – [Manual Handling - Stores](#).

5.4.4 During transportation

- Depending on veterinary advice, seals may need to be sedated for transportation.
- Oiled seals should be transported with the air temperature maintained at 17°- 20°C.
- When restrained, seals have a tendency to over heat and become hyperthermic. Hyperthermia can also be caused by, exertion or exposure to sunny conditions.
- Flippers should be cool to the touch. Cold, clammy flippers indicate hypothermia while warm flippers and steam rising from the body indicate hyperthermia.
- Careful monitoring of body temperature is required during transport and the flippers should be doused with cool water whenever they feel warm to touch.
- Hypothermic individuals can be warmed up with warm towels, heaters and hot water bottles.
Note: careful monitoring is required to ensure that hypothermic animals, provided with a heat source which they cannot move away from, do not then become hyperthermic.
- Stressors, such as human voices and loud noises, should be minimised during transport.

Content for the above procedures was copied or adapted from the [Wildlife Information Network and Wildpro](#) website 10 May 2011.

5.5 Transporting turtles

Marine turtles should be transported and handled in such a way as to minimise stress. Efforts should be made to minimise transport time but, if extended trips are unavoidable, the animal should be checked on a regular basis.

- The following measures must be undertaken when transporting marine turtles, irrespective of the type of transport used:
 - Turtles should always be transported in an upright position, i.e. with the dorsal surface (carapace) uppermost
 - Turtles should be kept out of direct sunlight, not left in vehicles in the sun and kept away from any direct heat sources (e.g. vehicle engine, exhaust or heater, hot floors of travelling vehicles). Most species are only able to maintain their deep body temperature to within about 3°C above the ambient temperature, and are vulnerable to overheating
 - Small animals can be put in a carry-box (eg 6-pack cooler) or other properly secured and ventilated container with damp foam material in the base to protect the underside of the turtle's shell (plastron).

- Larger animals can be transported in any suitable vehicle which allows the animal to lay on its ventral surface and the plastron to be protected by a wet blanket/foam; movement to be restrained as best as possible; and airflow/ air-conditioning to prevent overheating
- It is difficult to restrain turtles from moving, so confinement in a box/crate is recommended
- If unable to move the animal out of direct sunlight, turtles can be kept cool by covering them with cloth and keeping them moist
- Turtles will always move toward light so covering the transport box/crate with a dark cloth is recommended
- Loggerheads and hawksbills can become aggressive (and bite) when confined with other turtles, so separation is recommended. Green turtles are not usually aggressive to other turtles.
- Use of turtle mats for lifting and transporting heavy animals is recommended.

5.6 Transporting sea snakes

- Sea snakes are venomous and must be handled and transported in such a way as to ensure the safety of handlers and drivers and to minimise stress to the animal. The aim should be to minimise the amount of time the animal spends in transit and confined to its transport container.
- Sea snakes should be transported in individual cloth bags which are fastened securely to prevent escape. For added security, each bag should be placed inside another securely fastened bag or container.
- Venomous snakes can bite through cloth and, to minimise the risk to handlers and drivers during the journey, the secured bags containing the snakes must be placed in lockable rigid containers. These containers should carry a warning label indicating danger and identifying the species therein.

6. References

Procedures

- [Wildlife Response – Cleaning and Drying Wildlife](#)
- [Wildlife Response – Pre-emptive action](#)
- [Wildlife Response – Rehabilitation of Wildlife](#)
- [Wildlife Response – Release of Wildlife](#)
- [Wildlife Response – Scaling Down and Demobilisation Response](#)
- [Wildlife Response – Search and Rescue](#)
- [Wildlife Response – Set up and Use of Wildlife Treatment Facilities](#)
- [Wildlife Response – Triage and First Aid](#)

Forms

- [Wildlife Rescue and Release Form](#)

Safe Work Method Statements / Job Safety Analysis

- [Handling of Animals](#)
- [Manual Handling - Stores](#)

Role descriptions

- [Rehabilitation Division](#)
- [Rescue Division](#)
- [Wildlife Coordinator & Logistics Support](#)

Information

- [Wildlife Information Network and Wildpro](#)
- Field manual – Rescue and Rehabilitation of Oiled Birds, Erna Walraven, June 2004
- [Oiled Wildlife Response Kit](#)

Legislation

- [National Parks and Wildlife Act 1974](#)
- [Threatened Species Conservation Act 1995](#)
- [Environment Protection and Conservation Act 1999](#)
- [Work Health and Safety Act 2011](#)
- [Work Health and Safety Regulation 2011](#)

7. Appendices