



Department of
Parks and Wildlife



Whale Carcass Management



WHALE CARCASS MANAGEMENT



Southern right and humpback whale populations have steadily increased in Western Australia and, as part of the natural life cycle, there are more whale carcasses that can wash ashore in populated areas. Decaying carcasses can pose a number of issues including public health concerns and an increased presence of large sharks in coastal waters.

The decision to remove a whale carcass requires consultation between the relevant land manager/ local government authority, and the departments of Fisheries, and Parks and Wildlife.



WATCH THE VIDEO

The *Whale Carcass Management* video follows a Parks and Wildlife team as they go through a step-by-step removal of a whale carcass. It contains all the information found in this brochure and can be obtained free of charge by emailing: john.edwards@dpaw.wa.gov.au



EQUIPMENT

Safety is the first priority during any whale carcass removal operation. Personal protective equipment (PPE) should be worn when handling any biological materials.

Essential items:

- steel cap rubber boots or disposable coverall booties (over non-rubber steel cap boots)
- disposable overalls with hood
- disposable latex gloves (under riggers gloves as required)
- disposable surgical mask
- safety glasses.



PPE should be worn when handling biological materials..

All of the items listed above should be disposed with the carcass.

The following equipment list should be adapted to suit the size of the whale carcass and the state of decomposition. You may need:

- one heavy duty cargo net 10m x 8m or a combination of smaller nets joined to cover the length and girth of the carcass
- heavy duty cable ties
- coils of 8mm silver rope (and knife to cut)
- large plastic tarps to cover 10m x 8m (optional depending on the level of decomposition)
- at least six 2.5-tonne webbing binder ratchet straps (increase the number of binders by at least two for whales over 10m in length).

All of the items listed above should be disposed with the carcass.

You will also need the following **re-useable** items:

- four 5m appropriately rated lifting chains
- rated shackles.

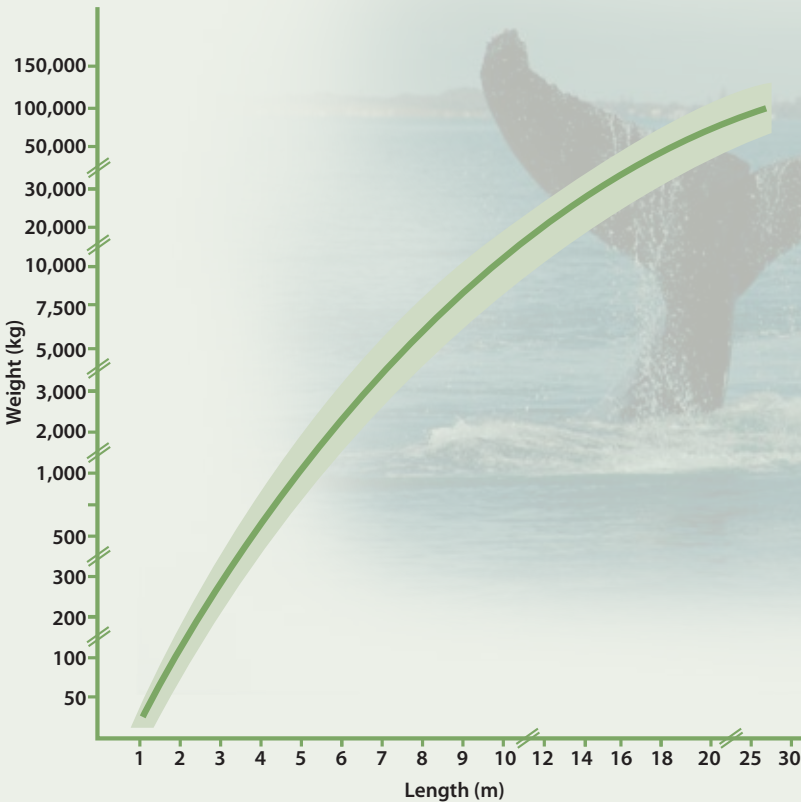
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PLANT/MACHINERY

In general, the carcass will initially be rolled onto the net array by a machine and dragged to a safe access point for a crane. The carcass is then lifted into a truck for transportation to a disposal site.

The plant required will vary depending on the size and expected weight of the carcass. It is recommended to initially secure large equipment as it is always preferable to remove the carcass in one piece.

ESTIMATED LENGTH-TO-WEIGHT RELATIONSHIPS



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Tracked machines are generally preferable. A **25 tonne capacity excavator** and a **bulldozer (D6/7 equivalent)** are recommended for 6 – 8m carcasses. Discretion can be used for smaller animals however there are advantages for using large machines, especially if the carcass weight has been underestimated. A tree arm

attachment on the bulldozer provides a lifting point for transport along the beach. A large crane is recommended. Dual lifts with multiple cranes may also be considered. In seeking an appropriate crane, review your exit (lifting location) and ask the crane provider their advice on weight verses distance from the craning point. Carcasses up to 12m (around 26 tonnes) can be transported in a semi-tipper truck. Larger animals should be floated on a low loader. Alternatively you can apply to the Department of Transport for an overweight load permit. Loads of up to 45 tonnes can be transported by mining equipment under permit.



Beach side before securing the whale carcass.



Placing the secured carcass in a truck for disposal.

PLACEMENT OF THE CARCASS

Using an excavator, gently edge the carcass from the surf zone to a safe access position on the beach for machinery to work either side of the carcass. Every effort should be made to not puncture or damage the carcass.

Set up the net array

The net array should be positioned so that when the carcass is rolled onto it, the animal is laying on either the dorsal or ventral surface, rather than on its side. This provides for greater stability of the carcass when people are working close to the animal.

If the net does not cover the full length of the carcass, support the head and mid areas of the carcass. At least three-quarters of the animal should be supported by the net, with the head being the priority. It is preferable to have an overlap of the net at either end of the carcass as this will assist with securing the animal during transportation.



Moving the whale onto the net array.

- 1 Once the carcass is clear of the water, lay the 2.5 tonne webbing straps at right angles to the length of the carcass. The straps should be as evenly spaced as possible however it is recommended that the heaviest areas are supported.
- 2 Use two of the webbing straps lengthways along the carcass. The position of the straps should be at a width that would place them either side of the midline of the carcass. If the straps are too short to be joined, omit the straps at this point as they can be positioned later.
- 3 Lay the cargo netting over the top of the webbing straps array.
- 4 If netting sections are being used, the joins must be secured initially by cable ties in each 'square' of the netting on all join lines, and reinforced using lengths of 8mm silver rope woven through the netting. Leave long ends on each end of the rope as these are used to tie off the net once it is wrapped around the carcass.



5 Where possible, carcass fluids should be contained. This will assist with protecting workers from coming into contact with biological matter and reduce any residue, which may cause later issues for beach users. Lay plastic tarps over the netting. If more than one tarp is required, ensure that there are large overlaps of at least 2 – 3m.



- 6** Once the net is in place, use an excavator arm to gently roll the carcass into the centre of the netting. Try to position the carcass centrally in the net array, lying on either the dorsal or ventral side (ventral side up is recommended to assist in containing bodily fluids).
- 7** Once the carcass is positioned in the net, pull the layers (tarp, netting and straps) up over the carcass. If using a tarp layer, secure it around the carcass as much as possible using silver rope and cable ties.
- 8** Once the tarp is in place, bring up either side of the netting and overlap the edges as much as possible. Pull the netting tightly around the girth of the animal, and secure with silver rope and cable ties. Weave the rope through the netting to ensure that the carcass is wrapped as tight as possible.
- 9** Pull up either end of the net and secure as tightly as possible. Run silver rope from end to end weaving the rope through the net to provide additional strength to the integrity of the wrap.
- 10** Pull up the webbing binder straps and weave lightly through the cargo net to ensure that they maintain their position when the carcass is being moved. Add straps to the length of the carcass if this if was not completed earlier.
- 11** Tension the straps as much as possible. The ratchet handles can be secured closed with cable ties. Note that the straps may need to be re-tensioned once the carcass is moved.
- 12** Once the carcass is secured within the net array it is ready for lifting or dragging.



Secured whale carcass being dragged along the beach.

MOVE THE CARCASS

It is likely the carcass will need to be moved along the beach to a point that can be safely accessed by a crane and tipper. Before dragging, try to ensure the carcass is ventral side up to maintain the structural integrity.

- 1 The carcass should be partially lifted at either end and dragged and/or pushed along the beach. An excavator can be used at the lead end and while tracking backwards, gently lift the front of the load using a short lifting chain from the arm and bucket. A bulldozer can be used to push the load from behind. If the dozer has a tree arm this can also be used to slightly raise the rear end using lifting chains. The purpose of the bulldozer is mainly to provide push power for the load.
- 2 Once the load has been moved to the point of egress, the crane can lift the carcass into the removal vehicle. A crane large enough to lift weight at distance should be used for ease and maximum chance of success.
- 3 To contain fluids during transportation, a bed of sand should be used in the base of the truck.

For further information on whale carcass removal visit
www.dpaw.wa.gov.au/management/marine/marine-wildlife

Contact John Edwards, Senior Marine Operations Officer, (08) 9303 7782 or 0412 958 191 email john.edwards@dpaw.wa.gov.au.

To report a live whale, turtle or cetacean stranding please contact the WILDCARE Helpline on (08) 9474 9055.