

Cosmetic post-mortems on mammals

Dead mammals from zoos are an important source of information concerning anatomy, taxonomy, geographical variation and pathology of teeth and bones. Many species are only poorly represented in research collections, so that the scientific basis of many so-called subspecies is non-existent.

A cosmetic post mortem allows full access to all tissues required by the pathologist, but does not take significantly more time to carry out and allows for the preservation of skins and skeletons for museum-based studies.

We suggest the following main steps in carrying out a cosmetic post mortem on a mammal.

1. Weigh the mammal and record its weight.
2. Make a small central incision with a scalpel. Make sure to cut between the hair, not through it.
3. To increase the size of the incision, insert the scalpel blade under the skin facing upwards, so that the skin is cut from underneath. The incision can be increased to extend from the anus to the throat.

Please do not cut through the lips.

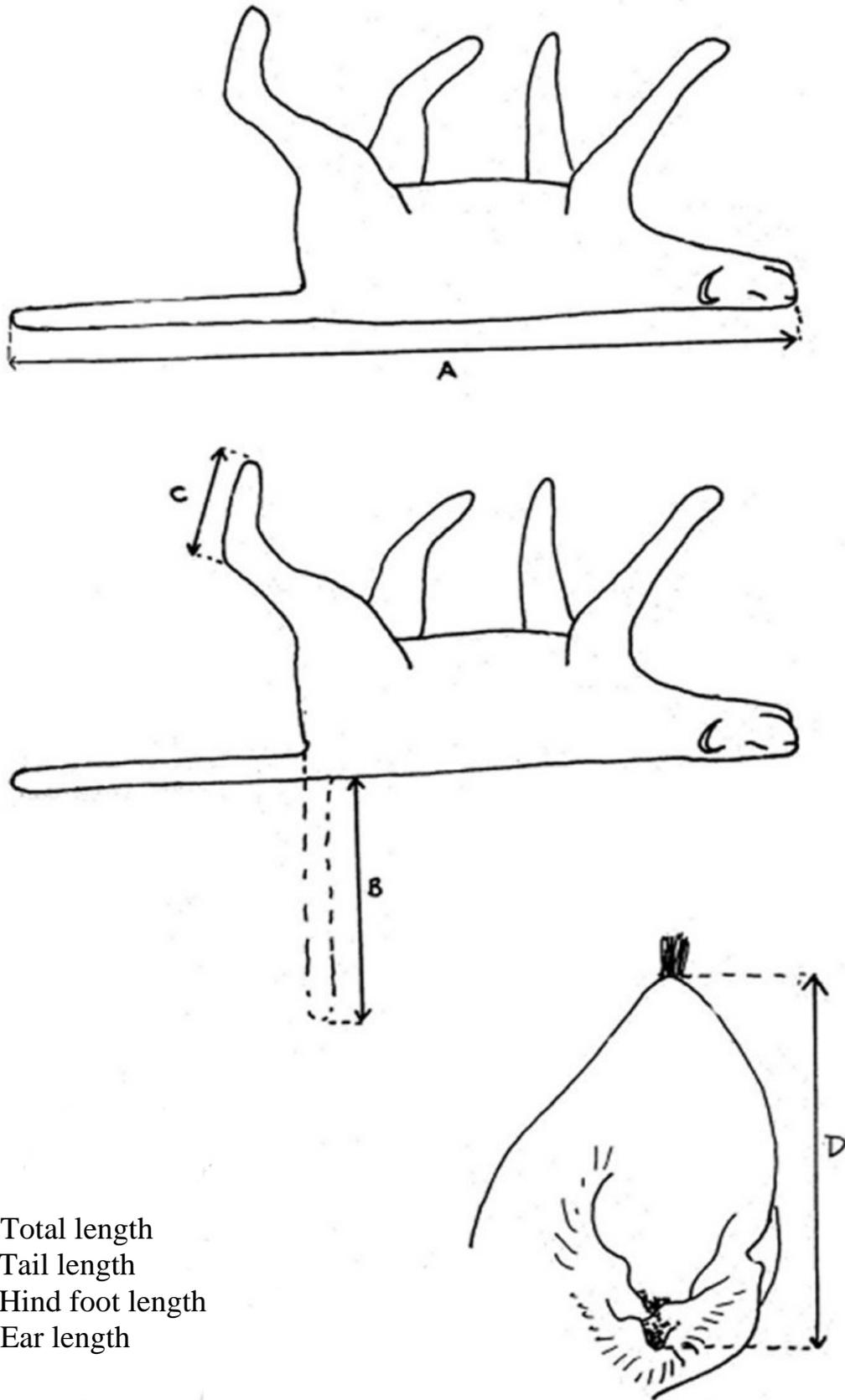
Please do not remove any pieces of skin, unless needed for histology. If so, make cuts as small and as cleanly as possible.
4. Peel the skin back from the thorax and abdomen. If possible, rub salt into this skin. Access can now be made to the abdomen.
5. To access the thorax, cut through the cartilaginous ribs close to the sternum and lift the sternum upwards and forwards, so that the ribs can be splayed apart. If access is required to the spinal cord, make an additional incision down the mid-line of the back and peel the skin to the side. As long as cuts are clean and all the skin is there, we can easily sew the pieces together again.
6. For larger mammals, it may be necessary to remove the limbs. This can be done from inside skin, by detaching the scapulae from the muscle holding them to the back and the humerus from the clavicle. For the hind limb, the head of the femur can be detached from the pelvis. Peel back the skin further to allow full access to the detachment points, but please do not cut through the skin.
7. If it is absolutely necessary to get access to the brain, make an incision from the crown on the head down to nape of the neck. Peel back the skin and if necessary cut through the bases of the ears. This will allow full access to the cranium, which should be trepanned carefully, so that the skull can be reconstructed after the post mortem. Alternatively, from the underside of the neck, sever the skull from the cervical vertebra and peel back the skin from the top of the head and cut through the bases of the ears if necessary. Again access to the cranium is now clear.
8. After the post mortem, if possible rub salt into the paws and face, double bag in polythene and deep freeze. Please label the bag clearly with species name, identification name/number and/or date of death.

Your help and cooperation in making dead mammal specimens available to museums is greatly appreciated. We will be delighted to feed back additional pathological information to you, when skinning the carcass and preparing the skeleton.

Please contact Andrew Kitchener at the National Museums Scotland, Edinburgh to arrange collection of frozen carcasses by courier.

Email: <a.kitchener@nms.ac.uk>; tel: + 44 131-247 4240; fax: + 44 131 220 4819

Figure 1. Post-mortem protocol measurements



- A - Total length
- B - Tail length
- C - Hind foot length
- D - Ear length