

RECYCLING THE DEAD

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Taxidermists

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We all know that rescuing, and rehabilitating wildlife is a time-consuming, costly and largely a labour of love type activity. For those who chose to dedicate themselves to this, we, who do not share this passion and commitment, can only stand in awe. Despite the best of care and intentions, some injured animals do not survive the various traumas they have endured and either die or need to be euthanized under veterinary care. It's those animals we wish to talk about in this presentation.

Once an animal has died, we ask that you, as those in possession of the body, consider donating it to an appropriate institution for preservation. There are other avenues of course, such as cremation or burial of the remains the two choices which spring most easily to mind. Before making this decision you should consider any legal implications- in Queensland, only those museums with a special permit can accept dead specimens of any animal or bird; as you know there are very heavy fines for anyone interfering in any way with any native bird or other animal without a permit. Other states may have different rules so it's wise to consult the relevant authorities to clarify those issues if you do wish to donate an animal carcass. There are several ways in which a carcass may be preserved, but the one with which we are most familiar is taxidermy *aka* stuffing.

The Oxford English Dictionary defines taxidermy as: "the art of preparing, stuffing, and mounting skins of animals with lifelike effect". Derived from the two ancient Greek words *taxis*, meaning movement and *derma*, meaning skin; the literal meaning of the word taxidermist is 'one whom arranges skins of animals or birds into a lifelike manner'.

The art of taxidermy can be traced back to the times of the ancient Egyptians who practiced a form of taxidermy in the mummification of sacred animals for inclusion in the tombs of the great pharaohs. In the early 1800s it was a popular hobby among wealthy English gents and this is how some of the great natural history collections, such as that of the Natural History Museum in London, began. These days, taxidermy is a bit of a cottage industry, with many museums relying on the efforts of volunteers like us to preserve specimens of local birds and animals to add to their collections. Skills are handed along from one volunteer to another and the level of expertise varies considerably. We will talk mostly today about preserving bird specimens, because that's what mainly what we do at MTQ.

Not all carcasses will be good subjects for preservation; anything that has been extensively mangled, dismembered or decomposed probably won't be acceptable, unless of course it's something so rare or unusual that, in the interest of science, it's worth the effort. In the case of birds, to be an ideal specimen, the carcass should be fresh, have good feathers, no skin tears and no blood. However, many less than ideal specimens can be used as long as there is no decomposition. At MTQ we are often able to salvage heads, wings, legs or tails of a bird which is not an ideal specimen and preserve these individual bits. They are mounted on cards and used for educational purposes, e.g. when we are asked to make presentations at schools. The more severely damaged parts of the bird, which can't be preserved, are disposed of. Of

course, some specimens can produce excellent mounts despite visible damage – they are just more work to hide or disguise the injury.

Many people would recognize the need to preserve specimens of rare, unusual or exotic species that we don't see very often but it's also important to include in collections those common, everyday species which often go unnoticed, simply because they are so common. These are the birds or other animals which don't make it to collections, because everyone thinks they are so common, that there are bound to be lots of them around and so don't make the effort to collect or save them. However, museums and natural history collections may be grateful for donations of good quality specimens, whatever the species.

If you decide to donate a carcass, the best thing to do is to freeze it immediately. Staying with birds as our example, there are ways to do this which ensure the specimen is preserved with all its feathers in good condition, and that's a prime consideration in achieving the best results in taxidermy. It's very difficult to make a good mount if the original specimen is presented the wrong way.

The best way to prepare a specimen for freezing is:

Lay the bird out in a natural pose

Stroke (smooth) the feathers to encourage them to lie naturally

If possible place a piece of cardboard under the bird to protect its tail from damage while in the freezer.

Wrap the bird in paper towel, serviettes or even newspaper – to absorb moisture and prevent ice forming on the feathers

Attach collection information

Place the wrapped bird in a sealed plastic bag in the freezer with the information...

Advise the museum that you have a bird carcass.

Deliver it to the museum, or advise where to collect the bird.

Freezing the bird also removes any biosecurity risks which are hugely important in any biological collection. Any bugs, mites or bacteria on the bird are killed, thus preventing them from making their way from the specimen into the collection where they could cause major and irreparable damage. Once in the museum the specimen spends another four weeks in the large freezer which maintains a temperature lower (-18o) than the home freezer.

Please try to collect and record as much information on the specimen as possible and make sure that information stays with it when it leaves your possession. The information you should try to record could include:

Species name of the bird

Name of the finder (not essential but useful in case further contact is required)

Where the bird was found (as much detail as possible)

Cause of death if known or put suspected

Date of death/collection

The easiest way to do this is to write the information down, place it in a separate (sealed) plastic bag, then include that bag in the sealed plastic bag containing the specimen. That information becomes part of the specimen's provenance when it officially enters the Museum collection.

The art of taxidermy isn't really as gross as you might think, there's very little dealing with the inner wobbly bits of the specimen, and there is usually very little blood. The skin is removed from the body very carefully to prevent any rupture of the body itself– we don't want any fluids to escape because they stain the feather and make the whole task more difficult. The wings, legs and tail are severed from the trunk as the skin is being removed, the skin eased off the limbs and the flesh removed from the bones. Those muscles will later be rebuilt using cotton wool or some other filler. Removal of the skin continues over the top of the skull, the eyes are removed and brain cavity emptied. (Those are probably the only two gruesome bits.) Once the body and neck have been removed, the skin is rubbed with borax to aid in drying, and a new body and neck made from either coconut fibre, taxidermy foam or some other inert material. False eyes are inserted and clay is used to fill the brain cavity. Wires are inserted into the rebuilt wings and legs to allow for positioning of the specimen, the wires are attached to the body, the body inserted into the skin and the whole thing is sewn up again. The specimen is posed and then lightly wrapped in cotton or light material to ensure the feathers stay where we want them until the specimen is completely dry. It is then left to dry for about three weeks. In Victorian times, birds were often displayed as groups in elaborate dioramas in large glass cases, and specimens chosen for those displays were often grouped together because they happened to look good in a group not because they would have naturally occurred in the same habitat or region. These days most museums go for less ornate but generally more scientific arrangements.

Specimens may also be preserved as study skins, which means they are skinned and then left to dry only having simple bodies put into them but no wire or eyes. These skins are mounted on a stick with the birds legs neatly crossed and tied. Skins are not put on public display but held in a controlled environment in the museum where they are available to scientists and researchers studying things such as population dynamics or genetic variability. They might be comparing the skins of birds from 40 or 100 years ago with more modern specimens to see if there have been any changes in feather colour or the distribution of the species so information provided by donors is really useful here as it provides hard evidence of the bird's history and geographic occurrence.

The other way specimens may be preserved is as skeletons, which again can provide valuable data for scientific research. Preserving skeletons is a very specialized process and not one which we are able to undertake at MTQ.

As carers, scientists and researchers, we understand that your focus is on conservation of species and protection of individuals so ensuring that live birds and animals are around for everyone to enjoy for years to come. But there is much to be gained from preserving those individual that cannot be saved. Public institutions such as museums gain by being able to display collections of local species to the public, and the specimens themselves continue to educate the public as to the threats their species face and what is needed if they are to continue to flourish. Collections and displays are able to be refreshed and made more relevant with new specimens as the old ones wear out. The community benefits by being able to see birds and animals in much more detail than is usually possible in the field and perhaps become more aware of those they didn't know anything about. Scientists and researchers have access to specimens which could provide valuable data. None of this is possible without the efforts of people like you who can provide the specimens for preservation. We thank you for the

donations that you've made to museums and other institutions like MTQ in the past and hope that you'll continue to assist us in our efforts to re-cycle the dead in future.