Subject: Re: Skining
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How to skin small mammals and preserve the skins for collections

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Small mammals like rodents and shrews should be preserved shortly after death, lest the skin will start degrading and loose hair. When working outdoors far away from electricity,or when collecting skins that are to be sent away, the easiest method (and one of the best ways) to preserve the animals for museum collections is to skin each animal and store the skin and skull in alcohol (70-96%). Here is a short instruction how to do this.

Before skinning the animal, weigh and measure the animal. Give weight in grams, and measures in cm (or mm). I measure total length (tip of nose to tip of tail; hair not measured), length of tail (to tip of tail with and without hairtips), and length of hind foot. The animal should be sexed if possible. Use a graphite pencil to write the data, this will allow the data tag to be stored in alcohol, attached to the skin.

1. Equipment needed
The best cutting device for skinning small mammals is a scalpel (shaft and replaceable blades). A small surgeon scissors is also very useful. It can be used to make the incission through the skin, and to cut legs, gut etc. A pair of pointed tweezers should be at hand. When skinning the animal, powdered borax will dry up moisture and make it more easy to grip the skin and body. Borax also conserves the skin and stop degrading, and should thus be used when skinning any animal that is not freshly dead.

2. Skinning
Use the scalpel blade to cut though the skin on the thigh. Prolong the cut by using either the blade or the small scissors (I prefer the scissors, because you then have better control and don't risk cutting into the intestines). Cut down the leg halfway between knee and heel, cut between the animals anus and genital opening, and down the other leg as far down as the first leg cut. Now cut the genital opening and the gut. Some mammels have scent glands around the anus. If in doubt where to cut, make the cut as close to the body as possible to reduce the risk of cutting through the skin. Now the tail should be pulled out of the skin. For most small mammals this can be done quite smoothly, but not for all species. You should not try to do this on lemming species, the tail will most probably break off from the skin if you try. In such species the tail bone should be left inside the tailskin. If in doubt - leave the tailbone inside the tailskin.

In most species you can pull out the tail by gripping the tailbone close to the body with two fingers, and hold back the skin on the tail with two fingernails (use borax to get a good grip). Then pull out the tail from the skin. It may offer some resistance at the beginning, but suddenly the tail comes out quite quick and neatly.

When the tail is freed from the body, you may proceed skinning up the back of the animal. Now it is time to cut the hind legs. Use the scissors, and leave the muscle tissue on the bones (it can then be stored as tissue samples in alcohol when the skin is finished in lab.). The skin can now be

pulled forward quite easily (in most small mammals you do not need any cutting to loosen the skin, while on bigger mammals you may have to use the knife to free the skin from the body). When reaching the front legs, cut them loose inside the scapula (shoulder blade) and leave the complete front leg bones with muscle tissue on the skin.

Now you reach the hind of the skull. Here you must be careful to avoid cutting through the skin. You soon reach the ear openings. From the skin the openings extend like thin "tubes" into the skull. Use the scissors to cut these tubes as close to the skull as possible. With this procedure, you can easily avoid cutting through the head skin. Cutting free the eye openings may prove a bit more difficult, because the skin grows close to the skull at this point. Use a sharp scalpel blade and make neat cuts as close to the skull as possible (that is; at the hind part of the skin - close to the skull). You should be especially careful when loosening the skin in the front of the eye openings - here the skin grows tightly to the skull. If the eye opening on the skin is cut, the finished skin will get unnaturally big eye openings. If you are in doubt how the free the skin at this point - just stop skinning after loosening the ear openings and proceed freeing the skull from the body.

Use a scalpel or the scissors to cut the skull free from the body. Be careful not to cut the hind part of the skull. It is better to cut a few vertebrae down the neck to be sure not to damage the skull. If you cut between the skull and the upper vertebrae, you are however able to clean out the brain from the skull. Use a syringe, fill with water and press water into the brain through the spinal hole. This will flush out the brain. Repeat the procedure untill most of the brain is flushed out. This cleaning of a fresh skull makes it a lot more easy to clean the skull when it is removed from alcohol for finishing.

If the skin is greasy with blood or dirt, it should be cleaned in water before storing in alcohol. Press out most of the water after cleaning. Now connect the data label to the skin. If you have freed the eye openings, you can pull a thread trough the eye openings and knit on the data label. Discard the body and put the skin with the skull into alcohol. When the data label is connected to the skin, and the skull is still connected to the skin in the nose, several skins can be stored in a plastic jar with alcohol. The skins can be stored for several years before finishing them for museum magazine storing. A plastic jar will also allow handling and transport without the risk of breaking (like for instance a glass jar).