

Treatment of Crocodile Skins

These notes on the preservation of crocodile skins have been compiled from information issued in Europe, Africa, and Papua and New Guinea. The purpose of this article is to stimulate discussion amongst persons engaged in the crocodile skin industry. If you have better methods for any part of the process of crocodile skin preparation, you are invited to write to the Editor of Harvest, giving technical details of your methods.

WHEN a crocodile is killed, the hunter must take the trouble to treat the skin properly, otherwise he will not get a good price for it.

The careful treatment should start immediately after the crocodile is killed. However it is killed—shot, speared or hooked—it is important not to damage the belly. A good skin that would be worth \$50 will bring only \$10 if there is a bullet hole in the belly. So any wounds or marks that occur during the killing of the animal must be on the head or the back.

The carcass should be removed from the water as soon as it has been killed, but this is not always possible. The carcass should certainly not be left in the water longer than eight hours, as decay sets in after this time. If left still longer, the carcass will eventually float to the surface. If this happens, the skin will be useless to the tanner.

When the carcass is removed from the water, it should not be dragged out over rough or stony ground, as this will damage the belly skin. If it cannot be pulled out at a grassy place, the carcass should be turned over and pulled out on its back.

When the carcass is taken out of the water, it should be skinned immediately, and the skin treated with salt. Speed is essential, otherwise the skin will start to rot or will dry out. Because of the danger of drying out, it is also important to keep the skin in the shade. It should never be left in sunlight. The sun dries the skin out and then it will not absorb the salt which is necessary for curing. Under these conditions, the scales take on an oily appearance and this makes tanning more difficult. Consequently the tanner and the buyer give a lower price for such a skin.

Ripping Lines

Cutting the skin off the carcass is known as "flaying". It is important that the skin is not

damaged when it is being removed from the animal. For this reason pointed knives should not be used. A knife with a blade no more than 4 in long, and rounded not pointed at the end, is most suitable. The operator should pull the skin away from the body with one hand, guiding the knife carefully so that it cuts only the flesh and does not puncture the skin at all. He should always be able to see where the knife is going. Particular care is needed when removing the skin under the legs, as the skin is thinnest at this point, and therefore most easily torn or cut.

In order to get the best-shaped skin, the cuts in the skin should be made as shown in the diagram. The cuts are made along the back of the animal so that the widest possible belly width is obtained.

Head.—Cut the skin across the back of the neck just under the hard disc on the top of the neck (ABCD). Then cut towards the snout on each side (AE and DE) and along the lower jawbone until the two cuts meet at the front.

Body.—From the neck cut, make two long cuts the full length of the body (CFFH and BFFH) leaving two rows of hard scutes (horny scales) on each side of the cut skin. The new law about crocodile skins states that these two rows of scutes must be present on each side of the skin. Except in the East and West Sepik and Madang Districts, a skin may not be bought or sold if it measures more than 20 in between the innermost row of scutes on each side.

Legs.—Hold the leg firmly at the "wrist" and pull it out away from the body. Starting at the main body cut (F), make a cut along the length of the leg, passing over the point of the elbow to the wrist (G). At the wrist, cut around the leg as close to the foot as possible. Similar cuts are made on the other legs.

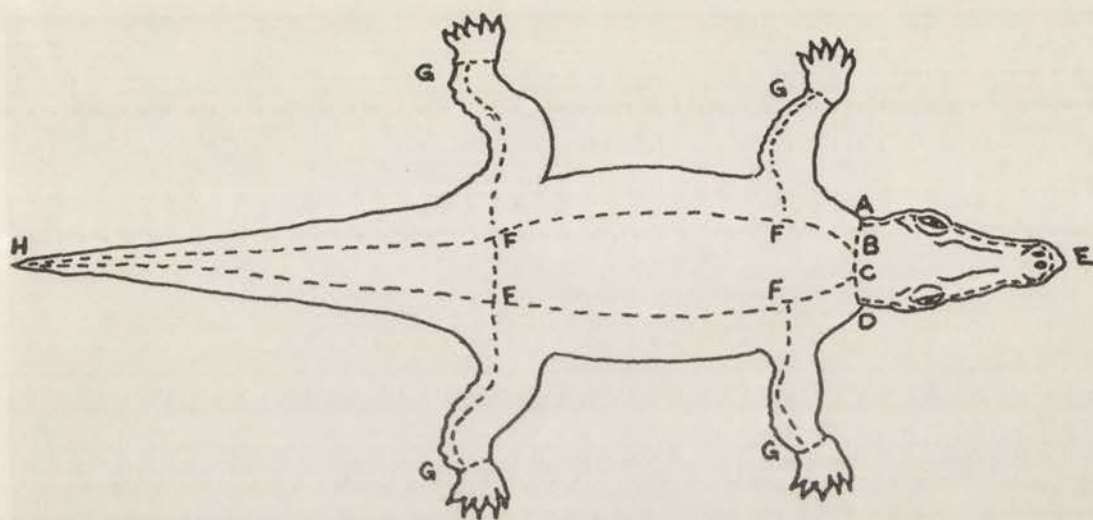


Figure 1.—The ripping lines of the carcass. Note that the cuts AE and DE are on the lower jawbone

It is most important that the leg cut passes over the point of the elbow, otherwise a "pocket" will be formed. This is a defect which reduces the price. If cut correctly, the skin will have light-coloured scales surrounded by an even dark edging.

Tail.—To remove the tailpiece, the easiest way is first to cut the triangular piece on top between the back legs and the tip of the tail (FFH). Then remove the skin from the tail by working downwards from the main body cut.

Cleaning the Skin

When the skin is separated from the carcass it should be placed on a flat, smooth surface, and any surplus flesh or fat should be scraped off. Any tissue left on the skin will stop the salt penetrating, and will thus give uneven preservation.

The scraping is most easily done with a scraper (like a fish scaler) made from a piece of hoop iron attached to a handle about a foot long. Often large freshwater clam shells are used to scrape skins, but this is rather tiring on the wrist if many skins have to be done. The scraper can be sharpened with a file, but it should not be so sharp that it can damage the skin.

Cleaning the skin of the tail often causes trouble. There is a lot of fat on this part, and if it is not all removed, the salt will not penet-

rate to cure the skin. To make matters worse, the skin is thicker on the tail, so thorough penetration is all the more necessary.

If the curing process is not effective, decay sets in, resulting in scale-slip. This loosening of the scales makes the skin unsuitable for tanning. If it is not arrested, it will spread over the whole skin.

Washing

When the inside of the skin has been scraped clean, it should be washed with clean water. This should be poured on from above, while the skin is scrubbed with a brush. Frequently the skin is dragged back to the river for washing at this stage, but this is not advisable; it may make the skin muddy, and it will still have to be washed with clean water.

First Salting

Odd bits of skin should be cut off to give the skin an even shape, and then it is ready for salting. The salt removes the moisture from the skin and stops it rotting. It is important that the salt used is clean and dry. Salt that has been used on another skin and shaken off should not be used again. The salt should be clean, dry and fine; coarse salt does not give good penetration.

The salt is rubbed into the skin on the flesh side. This may be done by hand or with a cloth, or with a smooth piece of wood. It must be done before the skin dries out.

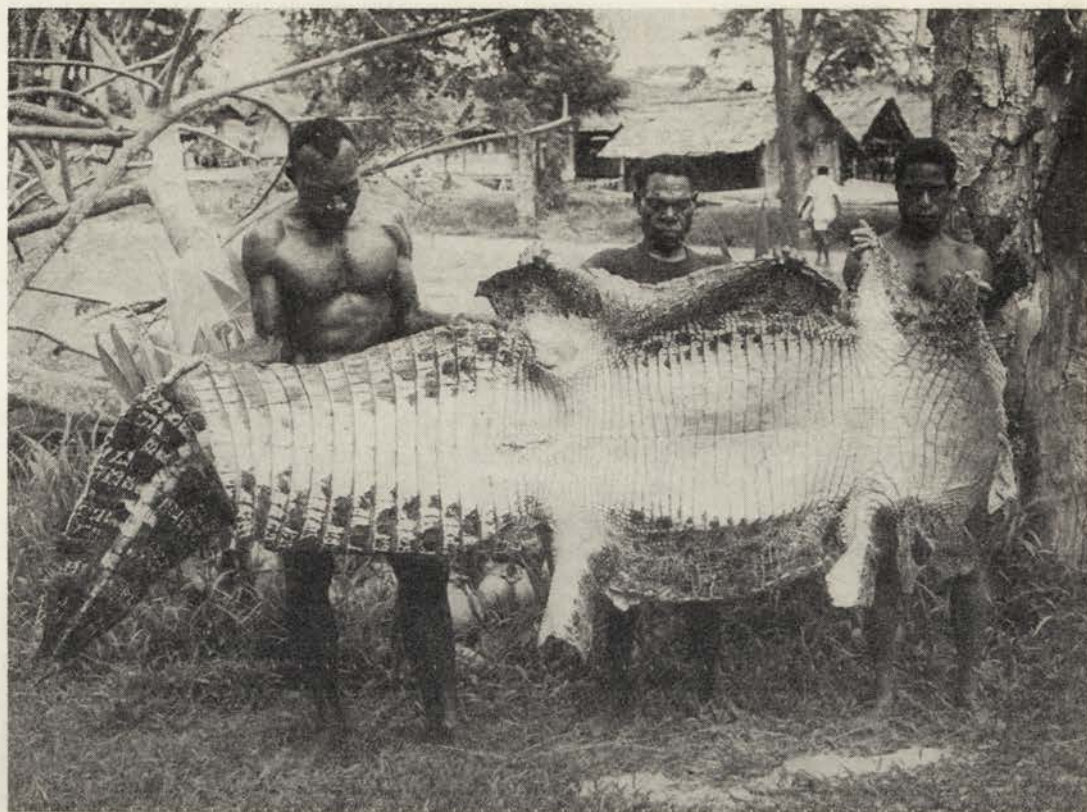


Plate 1.—The skin obtained from flaying as illustrated in Figure 1. The two rows of scutes (horny scales) can be clearly seen (Photo: D.I.E.S.)

The skin is then hung up to drain on a wire rack, with the flesh side uppermost. The excess moisture and salt will drain away, and after about two hours the salting process should be repeated.

The skin is then folded or rolled and put in a cool dry place for one, two or three days, before being re-salted. For the second salting a small amount of Merpin should be added to the salt (1 lb Merpin to 200 lb salt). The old salt should be shaken off and thrown away and new salt should be rubbed in.

The salt must be evenly spread and very thoroughly rubbed in.

The first salting usually reveals some flesh and fat that was missed at the first scraping. This should be removed before the second salting.

Final Treatment

After the second salting the skin is removed

to a shed or storehouse, where the skin will be protected from both sun and rain. The floor of the shed should be covered with salt. Lay the first skin, flesh side up, on the floor, and add more salt on top. Add another skin, then another layer of salt, then another skin, and so on. The pile should then be left for about ten days.

During this time the skin is "cured", that is, it is treated so that it will not rot. The natural moisture of the skin is replaced by strong salt solution which stops the bacteria growing, and this stops the skin decaying.

If decay sets in, the first indication will be "scale-slip". This may occur at any time if the skin comes into contact with water—which could be the result of a leaking roof or of rain during transport to the curing shed.

After ten days, the skins at the bottom of the pile will be further advanced in curing than those at the top. It is advisable, therefore,



Plate II.—Inspecting and packing skins

(Photo: D.I.E.S.)

to re-stack the pile, reversing the order of the skins (but still flesh side uppermost). The same salt may be used provided it has not taken up any red colour.

Signs of Scale-Slip

If "red-heat" is detected, scale-slip is sure to follow unless immediate action is taken. "Red-heat" starts as a pink colouration of the salt; as soon as it is seen, the whole area should be scraped clean and new dry salt mixed with Merpin should be thoroughly rubbed in.

Another method of detecting scale-slip is the light bluish appearance of the scales on the belly. Pressing a finger on the scales will indicate if there is moisture or air between the skin and the scale; if so, scale-slip is sure to follow.

Any skin that gives off an ammonia smell is very likely to develop scale-slip. An experienced operator can also detect scale-slip by the sound of the scales as the skin is moved about. These are dry and have lifted from the skin, but have not yet become detached from the skin.

Packing and Transport

After the second salting, skins should be folded and put in a cool dry place. They should not be put in houses or places where there is a great deal of wind, as the skin will become hard and dry, especially at the edges. During transport and storage, the skins should be protected from rats, which will chew holes in skins and thus reduce a first grade skin to a third grade one.