



Plaster Casting of Tracks

Making casts of tracks is a fun and educational activity for any tracker, but is especially exciting for young people.



The cast you make is only as good as the track. The very best tracks to cast are in fine grained mud, but tracks in coarser wet sand are also good. Prints in dry substrate usually yield poor casts. Tracks in snow can be cast, but primarily only when the prints are crisp with much detail, like those made in wet snow. Plaster of paris gives off heat when curing so a cast in snow will end up with less detail, unless you spray the track before casting with a product called Snow Wax Print, something I have never tried.

Before mixing the plaster, select and mark the best prints so you can move efficiently from one track to the next if you're casting more than one. Tracks that show the least soil movement and distortion are best. I have usually not bothered to put a collar around a track before casting it

for reasons I'll explain below. But if a track is on a slope, you'll have to shore up the downhill side if not collar it. For a collar, simply take a paper or plastic cup and cut off all but the top inch, leaving the rim. Or carry some adjustable automotive hose clamps with you.

All of my casts are made with plaster of paris, but feel free to experiment with other media. Eyeball the volume of plaster you need for the track(s) you're going to cast, considering that there should be enough so the cast isn't too thin; in other words the mixture should fill the track and rise above it especially if the track is shallow. Until you have some experience, err on the side of too much. You can usually find another track to cast if you mix more than you need.

Take this volume of plaster and mix it in a paper/plastic cup, or a sturdy plastic bag, with enough water to make the mixture like pancake batter or a thin milkshake. As you stir it or knead it, you may need to add a little more water or plaster. But you will notice that pretty soon the mixture begins to thicken. At that point, you must act quickly because you may have only one or two minutes to pour.

Pour the plaster directly into the track, allowing it to fill it including any claw impressions that might register in the cast. Don't worry about the shape the plaster will take; just make sure the whole track and claws are covered with room around the edges. Now, while the plaster is liquid, take a plastic knife, gently lower it into the plaster, and wiggle it back and forth so that the vibration brings any air bubbles to the surface, and flattens out the top surface of the plaster—a convenient feature when labeling the cast later.

After 45 minutes to an hour (longer if you're casting a moose or grizzly track!), test the hardness of the plaster by tapping it with a knife. If it kind of clinks rather than thuds, the cast can be removed. Dig into the dirt, all around under the whole cast until it comes free, normally with a good amount of dirt still attached. You can scrape off some of the dirt now, but don't overdo it, preferring to let the cast further dry before cleaning it up. Make sure you clean up the area around your project, removing stray blobs of dried plaster as well as all your materials.

After letting the cast dry overnight, clean the dirt off in a basin, using an old toothbrush. Let it dry a bit and now sculpt it as necessary. That is, take a file or SureForm rasp, and abrade the edges of the cast which is normally sort of irregular unless you've used a collar, until it's a nice round or oval shape. I found that pushing the file in one direction, away from you, rather than going back and forth, sculpts the cast precisely and efficiently.

(If your cast is too thin, never fear; you can reinforce it by putting it face down in some sand and then pouring more plaster over it, letting it dry and then going to the above step.)

Label your cast (species, front or hind, left or right, date, location) with a permanent marker, but not until your cast is really dry—maybe another day—because otherwise the writing will blur. Remember that looking at your cast, it is backwards from what the track was in the ground, so don't mislabel right or left!

The final step is to preserve the cast by putting two coats of Polyurethane or a similar sealant on it. This protects the plaster from abrading or chipping away as your cast is examined by curious hands.