

Wayne Luallen has agreed to allow Fresno Fly Fishers for Conservation to use a number of his articles. This will be the first one.

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WHY BOTHER TO CLEAN YOUR MATERIALS

Wayne Luallen

Bugs, dirt and chemicals are likely on most materials. There are multiple advantages to removing them:

- A. Will remove some eggs/larvae/adult insects, spiders, etc., that ultimately may damage the material.
- B. Dirt on material often has a detrimental effect on the application of it to the hook.
- C. Who knows what manner of pesticide and/or fumigant residue may have been around or on a material that the tier or others in turn can be exposed to.
- D. Clean materials are just nicer to work with. They have a better feel, more pleasant smell, and generally function better in the tying process.

TYPICAL TOOLS OF THE MATERIALS CLEANING TRADE

- A. Standard and fine-toothed combs.
- B. Small and large sieves to remove loose feathers from a bath and/or draining water from materials.
- C. Pistol-type blow dryer.
- D. Cleaning agent: Dishwashing liquid (Dawn is a favorite), Woolite, Liquid Ammonia, Acetone (organic degreasing agent as well as being hydrophobic to wet/damp materials).
- E. Hair conditioner.
- F. Pillow case.
- G. Borax (not the soap) or salt (only as a last resort)
- H. Table knife, tea or soup spoon.
- I. Sharp pocket knife to cut hides. Cutting is generally easier with wet hides. Dry hides may tear (bird skins) or may be too stiff (elk and moose).
- J. Rags, paper towels, newspaper.
- K. Tea kettle to steam materials.
- L. A sink or bucket to wash the material in.

CLEANING MATERIALS

- A. Almost anything can be washed
 - 1. To be safe, avoid strong laundry detergents. Dishwashing liquids, though detergents, generally are adequate and reasonably safe degreasers. When nothing else will do, the ultimate degreaser is Ammonia. Place approximately one cup of ammonia

into a gallon of water. Soak the material in this solution **outside** (due to hazardous fumes) for a few hours. Rinse thoroughly, wash in dishwashing liquid and rinse thoroughly again.

2. As a final wash, using Woolite seems to add a bit of luster, especially to feathers.
 3. Thoroughly rinse after each wash.
 4. Avoid washing in hotter water than hot tap water (no more than 140deg. F) to avoid skin shrinkage and/or possible feather barb damage.
- B. A final rinse of conditioner may prove helpful on materials such as calf and deer tails.
- C. Remove as much residue tissue and oil/fat as possible.
1. This helps keep the material clean since oil attracts dirt.
 2. Slows or avoids mildew from forming.
 3. Oils will be removed generally by washing alone, but upon drying, may be blotted with a paper towel on the skin side (generally of birds or bucktails).
 4. Fat is best removed by scraping with a dull "table" knife, grapefruit knife/spoon, spoon, or possibly a sharp knife. Effective cleaning will vary with the type of material. Sometimes removal is easier after washing while the skin is still wet, but usually it is easier when dry, which is definitely the case with hackle and saddle capes.

DESICCANTS

Borax is preferable to salt.

- A. It wicks oils, but will not be left behind in the skin as is salt which dries the skin (especially on hackle capes), often to excess.
- B. Borax acts as a bug-proofing agent in feathers and fur. This may be useful on whole bird skins or in the hair of mammal skins.

DRYING MATERIALS

Blow drying is best on:

- A. Hackle/saddle capes.
- B. Fur-bearing animal skins, such as rabbit, muskrat, etc.
- C. Loose, damp (blotted) feathers B Place in a pillow case with the nozzle of a blow dryer inserted just inside. Wrap the pillow case open end around the nozzle of the dryer. As the air blows into the ballooning pillow case, "bounce" the feathers. This process takes about 5 minutes for 1/8 - 1/4 oz. of feathers.

Open air drying works best on:

- A. Larger bird skins blotted and placed on absorbent paper. Every few hours flip sides. (It may be necessary to change the paper if it gets too damp.)
- B. Deer, elk, bucktails, etc. – best placed between two "racks" such as frames of chicken wire or barbecue/oven grates with some weight on top to allow air to reach both surfaces helping to avoid skin curl. They can be tacked down to a frame, hair-side up, to allow even drying and to avoid hair matting, but the skin dries more slowly than when on a rack. To remove the "crease marks" from the wire or grates, simply steam the material.

Note: Do not dry materials in a microwave. If there is skin attached, it will cook the skin

and cause it to curl and shrink.

Note: Acetone (an organic solvent) is hydrophobic and should be considered when feathers (or perhaps other materials) need to be dried quickly, i.e., during the process of dyeing.

STEAMING MATERIALS

- A. Be careful not to burn the material or oneself in the steam.
- B. Some clean materials may need steaming to "fluff" them up due to storage, etc.
 - 1. Peacock herl is dramatically refreshed in steam (NOTE: Ostrich herl is susceptible to become "fuzzy" in steam – work carefully with it if at all.)
 - 2. Deer hair
 - a. Removes creased marks from drying racks.
 - b. Softens and swells it just prior to spinning.
 - c. Will straighten bent hair.
 - d. Makes trimming bugs/irresistible bodies cleaner and easier.
 - 3. Matted feathers or fur
- C. Care should be taken in not only the heat of the steam (the closer to the source, the hotter), but also the quantity of the steam. Some materials need a blast and some a gentle waft of steam.
- D. Old flies can be refreshed by washing in dishwashing liquid, rinsing, blotting, air drying, and then steaming. Care should be taken to avoid putting damp flies back into storage B hooks may rust.

DEBUGGING MATERIALS

- A. Until proven otherwise, any new material to a collection is to be considered contaminated – no matter the source.
- B. Always be on the lookout in your tying room for contamination by "bugs."
- C. Some insecticides are carcinogenic, so take care in handling, and avoid prolonged breathing of their fumes.
- D. Microwaving cannot be depended on to kill eggs, larvae and/or adults.
- E. Freezing will kill larvae and adults, but cannot be depended upon to kill eggs.
- F. To kill, commercial bug sprays can be sprayed or poured onto a rag which is then sealed in a container with infested materials. Again, this may not kill all eggs. After this process, wash the material to remove the insecticide.
- G. If moth crystals are used, seal them with the material.
 - 1. This fumigates the material.
 - 2. It reduces fumes in the storage area.
 - 3. Reduces waste of crystals (slows evaporation).
 - 4. Paradichlorobenzene kills, naphthalene deters.
- H. Specifically for Variegated Carpet Beetles, a method of killing them involves cycling the critters. Their hatching period extends over a period of approximately 30-45 days. Place the material into a plastic bag in the freezer overnight. Next day bring the material out and place in a dark location at room temperature for 30-45 days. Again place the material back into the freezer again. Another possible solution is to

periodically open up the entire room to extremes of hot or cold. For instance during the heat of summer or cold of winter, open the window to the room that the tying materials are in. These beetles do not tolerate extremes of hot or cold. Prepare the room accordingly so that nothing is damaged by these extreme climate changes, such as moisture on furniture, etc.

STORAGE OF MATERIALS

Use sealable storage jars or plastic bags.

- A. When using plastic sealed bags (Ziplocs or heat-sealed), it can be assumed unlikely that bugs will get into the bag (except for ants!), but are likely to eat their way out.
- B. Plastic or glass jars may not store as compactly as plastic bags, but are sealable. Note: Some hard plastics, such as Styrene, melt when exposed to Paradichlorobenzene.
- C. It is wise when storing different materials in the same space to use multiple, sealable bags to compartmentalize materials and reduce carry-over bug problems.
- D. Make sure the material is completely dry before storing to avoid mildew.
- E. Rubbermaid and Tupperware type containers may or may not seal completely. If they are used, be sure that you acquire those that afford complete sealing.

CLEANING HACKLE CAPES AND SADDLES

- A. If the cape/saddle is dirty, it is generally quite apparent. The skin may not appear that greasy, but look closely at the feathers for barbs that adhere to adjacent barbs or feathers that appear dusty green (mildew.) Even capes/saddles that appear clean, when wet will have areas of grease in/on the skin that are cream to amber in color, as opposed to the clean skin which will be off-white to transparent. If grease is present, scrape the dry skin carefully with a spoon in the direction the feather quills enter the skin, removing as much grease as possible. The direction you scrape is important. Scraping the wrong way will cut into the quills, releasing the feathers from the skin.
- B. Wash in hot tap water with plenty of dishwashing liquid. Allow to soak for one hour with periodic agitation. (Note: It may be advisable not to wash all saddles. Some, such as those from Whiting Farms, are from birds that have been hybridized to never fully develop quills. Look for black specks where the quills should be. If they are present, this is a sign that the feathers are immature. When such saddles are washed, the feathers will fall out.)
- C. Rinse thoroughly in warm water.
- D. You may want to try an additional wash in Woolite.
- E. After thorough rinsing, blot dry with a towel and blow dry the cape. Be sure to blow down into the feather bases to get the plumulaceous barbs of the feathers dry.
- F. Prior to storage, set aside to air dry at least overnight so that the skin is completely dry. (Within the first hours of air drying, periodic stretching of the skin may be appropriate to avoid curling, or you may wish to tack the cape/saddle skin side down

to cardboard.)

CLEANING CALF TAILS

- A. Wash in hot tap water and dish washing liquid, as with any other material. Soak and agitate for about one hour, then rinse thoroughly.
- B. Repeat, but now with Woolite.
- C. It might even be desirable to rinse with hair conditioner, followed by an additional warm water rinse.
- D. Blot dry.
- E. Using a standard pocket comb, comb through the tail in its natural direction to loosen any intertwined hair.
- F. Dry with a blow dryer.
- G. Follow up by combing again.
- H. Set aside for a minimum of 24 hours to dry the skin completely before storing.

WASHING LOOSE FUR

- A. Place the fur/hair blend into a jar that has the capacity to seal water-tight. Add some dish washing liquid and fill with warm to hot tap water about 3/4 full. Close the jar and agitate vigorously. Let it set 5 minutes, then repeat the agitation. The degree of dirt in the blend will determine the number of repetitions of the agitation.
- B. When thoroughly washed, pour out through a nylon stocking, fine mesh sieve, or fine mesh aquarium net.
- C. Return the wet blend to the jar, add fresh warm water, agitate and drain as before. Repeat until agitation produces no soap. (Note: It may be desired at this point to repeat the process with Woolite.)
- D. Finally, drain, blot with paper towels, and spread material out a bit allowing it to air dry.
- E. To return the now-possibly-clumped blend to a more workable state, drop it into a coffee mill or blender for a quick "spin," or separate the clump with carding tools.
- F. Store the blend in a Ziploc bag or other sealable container.

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