

BRTC Dry Specimen and Fumigation Processing

After specimens are skinned and prepared, skeletons and skins receive separate, specific treatments.

Skeletal Material

1. Freeze skeletal material in individual bags until there is room in the bug room
2. Place skeletal material in bug room with unique metal tag (extra identifier), record the specimen and tag numbers in the log book, and leave with bugs until skeletal material is clean (spray with water every few days to keep bugs active).
3. Once skeletal material is clean, remove skeleton from bugs. Soak skeletons in ammonia for 1 day to rehydrate any remaining tissue so it can be picked clean with forceps. After picking off remaining tissues (if any) rinse with water over sieve. Air dry.
4. Box or vial skeletal material. If boxed, write the prep number on the box with pencil.
5. Once skeletal material is fully processed, place in freezer for fumigation for 7-10 days.
6. After freezing, place in holding case in mammal or bird range. Once material is matched with skin (if necessary), assign TCWC number, number bones, and install specimen into collection.

***PLEASE SEE DERMESTID BEETLE CARE AND FREEZE DRYING PROTOCOL FOR MORE INFORMATION AND INSTRUCTION**

Skin Material

1. Leave skin in drying case until skin is fully dry.
2. Once skin is dry, place in freezer for 7-10 days. Allow specimens to warm to room temperature, then freeze again for 7-10 days (some pests can survive one freeze cycle).
3. After freezing, place in holding case in mammal range. Once skin is matched with skeletal material (if necessary), assign TCWC number, number bones, print and attach labels. Hold specimen for 1 month to verify that there are no bugs. After 1 month install specimen into collection.

General Maintenance of Skin Collections

1. Check all cases for bugs every 6 months. Bug checks involve lifting every specimen and checking for debris. Clear any debris (dustbuster, blow, or bang into trash) and check for bug damage. If live bugs are found, remove infected specimen(s), place in a bag, and into the freezer until case is available. Place ethyl acetate in the case (in glass bowl covered with cotton balls) and seal the case for a minimum 4 weeks. After case is opened and allowed to air out for a few hours, complete inspection and cleaning. For specimens in the freezer, after 7-10 days pull specimens out and allow them to return to room temperature. Then refreeze because some pests can survive one freeze cycle. After the second freezing, allow specimen to return to room temperature then gently bang off debris and dead bugs and re-install into the collection.

Biodiversity Research and Teaching Collections
Department of Wildlife and Fisheries Sciences
Texas A&M University
College Station

2. Place moth balls in all cases. Check status of moth balls every 6 months (at the same time of bug checks)
3. Anytime anyone is working in the collection, have them keep an eye out for bugs. If they see any bugs they should report to a faculty curator, curatorial assistant, or staff curator

Loan returns

All loan returns, including skeletal material goes into the freezer for fumigation for 48 hours, allow specimens to warm to room temperature, then freeze again for 7-10 days (some pests can survive one freeze cycle) before being returned to the collection.

Teaching specimens

All specimens borrowed for teaching purposes also need go into the freezer for fumigation for 48 hours. Allow specimens to warm to room temperature, then freeze again for 7-10 days (some pests can survive one freeze cycle) before being returned to the collection.

What to do in case of infestation

If live bugs are found, remove infected specimen(s), place in a bag, and into the freezer until case is available. Place ethyl acetate in the case (in glass bowl covered with cotton balls) and seal the case for a minimum 4 weeks. After case is opened and allowed to air out for a few hours, complete inspection and cleaning. For specimens in the freezer, after 7-10 days pull specimens out and allow them to return to room temperature. Then refreeze because some pests can survive one freeze cycle. After the second freezing, allow specimen to return to room temperature then gently bang off debris and dead bugs and re-install into the collection.