

SOP 15: Shipping specimens

Frost Entomological Museum Curator & Interest Group

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Preamble

This SOP describes the process of preparing specimens for shipment and how they are packaged and mailed..

1 Preparing specimens for shipment

The sections below are adapted from a summary originally written by L. L. Deitz (North Carolina State University).

Pinned / dried specimens

1. Select unit trays with suitable pinning substrate, preferably Plastazote
2. Place pinned insects into unit trays, spaced such they fit efficiently but will not touch each other
 - Note that primary type specimens must be separated such that each one is in its own unit tray. If a piece falls off of a type specimen, you want to know that it came from that specimen, not from any others
3. If you are placing separate unit trays into a larger Schmitt box, make sure that the unit trays are packed snugly into the box in such a way that the unit trays will not shift or move when the box is tilted
4. You may want to put plastic wrap over the top of each unit tray to keep specimens contained
 - Always wrap unit trays when shipping primary type specimens
5. Put a piece of cotton in each unit trays so that if any pieces fall off of the specimens, they will get caught in the cotton instead of getting lost
6. Make sure pins are well distributed in empty areas of the Schmitt box or unit trays to prevent the cardboard cover from touching the specimens
7. Brace genitalia vials, large insects, and rotating insects with insect pins (cross-pinning)
8. Place unit trays into a Schmitt box and secure with pieces of foam so that they don't shift around

9. Place cardboard on top of Schmitt box, under the lid
10. Use some type of filler—foam, cotton, folded paper towels—on top of the cardboard to make sure the top fits snugly under the Schmitt box lid and that there is no rattling of unit trays inside of the box
11. Place Schmitt box into a large zipper-lock plastic bag
12. Place loan form inside bag and seal shut
13. Get a shipping box large enough to fit the Schmitt box with at least 5 cm space for padding on all sides
14. Ship only 1 Schmitt box in a larger package to prevent multiple boxes from hitting each other. Ship 2 boxes together only if they are securely tied together
15. Fill the box halfway with packing peanuts. Put the Schmitt boxes inside, then cover with packing peanuts until they are slightly over the top of the box. Close the box and tape securely
16. Attach the proper address information and write with a sharpie “Fragile: Insect Specimens. No commercial value” on the sides of the box. BioQuip also has insect shipping labels you can attach

Slides

1. Make sure they are double boxed, similar to Schmitt boxes
2. Pack slides with coverslips facing each other, and form a “brick” of slides
3. Place cardboard between opposing coverslips to protect them
4. If in a slide box, place packing material between top of slides and lid to prevent breakage
5. If not in a slide box, wrap in bubble wrap and tape the ball of bubble wrap shut
6. Place in box and package as with Schmitt boxes

Vials

Shipping ethanol is now heavily regulated. Consult with University Environmental Health and Safety experts.

1. Wrap each vial in paper towel or bubble wrap to separate from other vials
2. Seal vials in vacuum-sealed bags with enough paper towel inside to absorb the amount of liquid in the vial in case of a leak
3. If placed inside a Schmitt box, make sure there is padding around the vials so that they do not rattle.
4. If not inside box, wrap in bubble wrap and tape the ball of bubble wrap shut
5. NEVER PLACE PINNED SPECIMENS AND VIALS INSIDE THE SAME SCHMITT BOX
6. Place in box and package as with Schmitt boxes

2 Domestic shipping

Unless the recipient requests otherwise always use the United States Postal Service. Entomology office staff can assist in any paperwork, and boxes should be sent from the Entomology office.

3 International shipping

Unless the recipient requests otherwise always use the United States Postal Service. Entomology office staff can assist in any paperwork, and boxes should be sent from the Entomology office.

For all specimens shipped internationally, you must fill out a Declaration for Importation or Exportation of Fish or Wildlife (Form 3-177) with the United States Fish and Wildlife Service: <https://www.fws.gov/le/declaration-form-3-177.html>

You can print out the forms and mail them in or bring them with you in person when going through a port. Alternatively you can fill out the form online : <https://edecs.fws.gov/>

After filling out the form online, you will then have to submit the form, the confirmation, the loan invoice from the museum listing the specimen information and the contact information of the museum, and shipping receipts (if applicable) and combine them into a single PDF, which will then be submitted online as the Edec form.

You can find a list of all ports in the United States here: <https://www.fws.gov/le/designated-ports.html>

Other resources

Ted MacRae has a great and well-illustrated description on his blog of how to prepare and ship specimens:

<https://bit.ly/2aa7Hzr> (*Beetles in the Bush* Wordpress blog)

See also this reference:

Sabrosky, C. W. 1971. Packing and shipping pinned insects. *Bulletin of the Entomological Society of America* 17(1): 6–8 <https://doi.org/10.1093/besa/17.1.6>