

Care of Salvaged Specimens for Museum Use

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Mammals and Birds:

If the specimen is fresh, place it into cold storage and into a freezer as soon as possible. If placed temporarily into a cooler, do not let it get wet; wrap it well with paper towels or newspaper. Place it in several plastic bags if the specimen will be lying directly on ice. If you find a specimen that is fresh dead but wet, try to dry the fur/feathers as well as possible before freezing. Birds, and especially mammals, spoil quickly and are much more likely to “slip” if they get wet. It is uncommon to find a dead specimen in acceptable condition to make into a study skin. If the specimen is rotten, it still may be useful as a skeleton, but if it is too far gone to make a skin, don’t worry about keeping it cool or freezing it. Use your best judgement.

Permits are needed to possess and/or transport most bird and mammal species or parts thereof (including feathers and nests), even if they are found dead. Collecting live birds or eggs requires a federal permit, but the state of North Carolina may issue a salvage permit for dead birds.

Reptiles:

Place reptiles into cold storage as soon as possible (refrigerator or cooler with ice). It is alright if the specimen gets wet. It is best NOT to freeze reptiles if they are to be preserved as museum specimens, unless they cannot be kept on ice or refrigerated and taken to a museum within a few days. Freezing doesn’t ruin the specimen, but it softens tissues, and in some cases, darkens and obscures color patterns, and makes for a poorer specimen in the long run. It is also alright to freeze them if that is the only reasonable option (wrap them in several layers of damp paper to prevent freezer-burn if they are to remain frozen for any length of time).

Permits: In North Carolina, a permit is required for possession of state-listed species, even if they were found dead, and possessing five or more native reptiles requires a permit, regardless of species.

Amphibians:

These spoil quickly, and it is rare to find dead specimens that are valuable as specimens (unless as skeletons). For live or very fresh-dead adults: place them in a plastic bag with a damp paper towel or other damp substrate and get into a cooler or refrigerator ASAP. Get them to museum ASAP. If this isn’t possible, it is probably better to place them in 10% formalin than to freeze. Most amphibians make very poor specimens if frozen. Larvae: Drop into 10% formalin (ca. 65% ethyl or isopropyl alcohol will do if there is no formalin available).

Permits: In North Carolina, a permit is required for possession of state-listed species, even if they were found dead, and possessing 25 or more specimens requires a permit regardless of species.

Fishes

Like amphibians, these spoil quickly, and it is rare to find dead specimens that are of much value (unless as skeletons). Specimens are best dropped alive into 10% formalin. Large specimens may be frozen if that is the only reasonable option.

Permits: In North Carolina, a permit is required for most types of fish collecting.

Crayfish

For live or fresh-dead specimens, either drop directly into 70% ethyl alcohol (isopropyl will suffice if ethyl is unavailable), or keep cold and get them to the museum ASAP. They should never be put in formalin. Dead or dried-out specimens may also be useful – if you find dried ones, leave them in that condition.

Millipedes, centipedes, certain insects, most other arthropods

Bring in alive, or drop directly into 70% isopropyl or ethyl alcohol.

Leeches:

Bring in alive if possible (some species are easier to identify if they are kept alive and starved for a time; this makes the color patterns easier to see if they are not obscured by ingested blood). If not possible to keep alive, drop into 10% formalin.

Mollusks:

Best brought in alive. Can be placed in ethyl or isopropyl alcohol if no other option is available. Dry shells often make valuable specimens, and may be brought in as-is.

Permits: Collecting mollusks requires a permit in North Carolina, especially for freshwater mussels. In most cases these should not be collected alive except by persons specifically working with them.

Remember: for many organisms, photographs can serve as important vouchers.