

Natural History Collections



Natural History Collections

- What if someone did all of your specimen collecting for you?
- What if all of your specimens were in one centralized location?
- What if your specimens didn't try and squirm and squeeze themselves out of your hand?

No, this isn't herpetology heaven, this place is real!

Natural History Collections

- **Natural history collections** are centralized deposit points for biological material collected in the field
 - Whole animals and plants
 - Parts of animals and plants (pelts, bones, nests, eggs, etc.)
 - Fossilized material (fossilized bones)
- Natural history collections that display some of their material to the public are **natural history museums**
 - American Museum of Natural History in New York City
 - Smithsonian National Museum of Natural History in Washington DC
 - The Field Museum of Natural History in Chicago
 - Many more...



Smithsonian

Specimens

- Specimen collecting is one of the original scientific and biological techniques
 - Done properly, specimens in a collection will far outlive their collector
- Specimens must have relevant information associated with that individual (data most often taken from field notes!)
 - Date of collection
 - Location
 - Collector
- Collections serve as a valuable repository for more than just dead things
 - Range extensions
 - Species descriptions
 - Historical Data



Types of Specimen Collections

- **Wet**

- Alcohol storage
- Several step process to ensure material remains preserved
- More common for animals than plants



- **Dry**

- Plants, skeletons
- Material must be carefully curated to prevent loss



Types of Specimen Collections

- Uhh... living specimens too?
- AMNH keeps two “pet” tortoises around



Collections House

“Type Specimens”



- When a new species is described, anatomical descriptions are from 1 (2 if the sexes differ) individual.
- The exact individual that is being described must be deposited into a museum collection, preferably a recognized institution of higher education
 - UConn has many of these.
- The individual described is identified as the “holotype.”

Collections House Extinct Species

- Sometimes Collections serve as our only data on extinct species
 - UConn has both the Passenger Pigeon and the Carolina Parakeet in it's collections
 - The extinct golden toad (*Bufo periglenes*) is now only available in collections

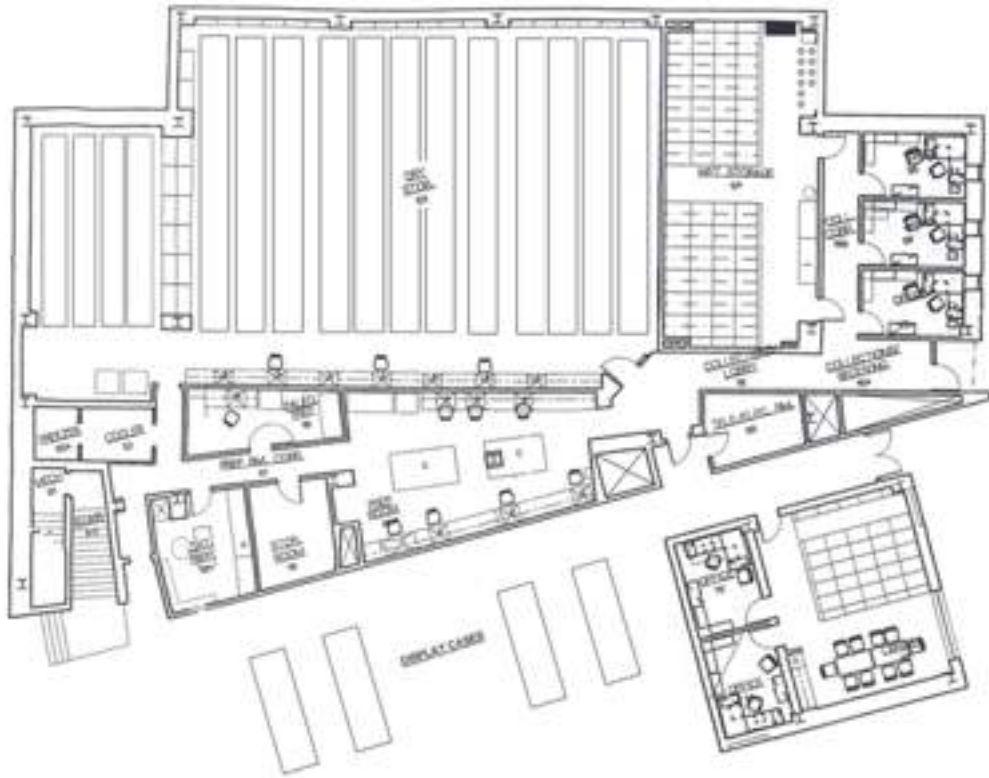


Collections in Danger

- Many smaller institutions are closing down their natural history collections
 - Cost and space, the usual
- Larger institutions are forced to deal with the extra material, and many lack the extra space to handle the material
 - UConn was recently gifted all of Dartmouth's collection.
- This sucks. [Video](#)



The University of Connecticut Biodiversity Research Collections



- Thankfully, UConn's collection is a bastion for biological specimens
 - New, multimillion dollar facility
 - State of the art environmental controls
 - Ensures 100 year old specimens stay preserved
 - Ensures new specimens last for hundreds of years into the future

