



Name: _____

MAMMALOGY LAB 9

Trapping and Maryland Mammals

I. TRAPPING

No field study of mammals should be undertaken without appropriate consideration for safety. Your purpose is to gather data about mammals; not to take a chance on becoming a mere data-point in the history of mammalogy. Fieldwork is fun but it has its hazards: lightning, loose rocks, cold, heat, rattlesnakes, ticks, sun, wind, mosquitoes, mud, nettles and poison-ivy, and...most mammals bite! Those that don't bite will claw you or poke you with a horn if you unduly interfere with their lives or their comfort. If you are working in the field, you will need all of the aptitudes, attitudes, and skills of any backcountry traveler. And then you need to cultivate some skills and habits and cautions peculiar to field work, such as health precautions: with most species you need to be alert to ectoparasites (and although dog fleas and rodent fleas won't live on you permanently, they may bite you for awhile until they catch on to the fact that you are an inappropriate host). Ectoparasites can transmit endoparasites, such as Hantavirus, or Lyme disease. So:

- Know the hazards of working with particular species in particular places at particular times; apprentice with a survivor.
- When working in dusty environments (which includes owl pellets as well as woodrat dens) use an appropriate respirator
- Wear appropriate gloves—heavy leather for woodrats, light leather for bats, latex for recently dead mammals, etc.
- Scrub (don't just wash) your hands immediately after handling mammals, their scat, or other leavings or remains.

Any field researcher must also have familiarity with the dangers of a particular species, and knowledge of the appropriate traps:

In an attempt to find "the better mousetrap," a wide variety of traps have evolved over the millennia. Some are more effective than others and some are more humane than others.

Standard livetraps and snaptraps are excellent for capturing mammals in the range of about 10 to 100 gram range. Above that limit (large packrats, large squirrels), specialized traps are needed. Also, below that limit (smaller pocket mice, shrews) pitfalls sometimes are the preferred trap. The most productive and informative studies of the smaller shrews have been done with pitfalls. A large jar or can (#10 or preferably larger) is buried to its rim in the ground. Usually a cover is placed on the can, elevated perhaps an inch above the rim. Sometimes a small amount of water is placed in the can as "bait." If used as livetraps, pitfalls must be checked every few hours or the captured animals will perish.

◆ Examine the variety of traps in the attached printout, consider their appropriate uses, and note how adequately they meet the American Society of Mammalogists minimal acceptable standards for field methods (also included as an attachment).

_ "Museum Special" mouse trap

_ Standard "Victor" mouse trap

_ Multiple-catch mouse trap

_ Standard "Victor" rat trap

_ Sherman livetraps

_ "Fitch" livetraps

_ "National"/"Tomahawk"/"Havahart" livetraps

_ leg-hold trap

_ "Conibear" trap

_ harpoon mole trap

_ McAbee gopher trap

II. MARYLAND MAMMALS TAKE HOME QUESTIONS

Refer to <http://www.dnr.state.md.us/wildlife/espaa.asp> to answer many, but not all! of these questions

◆ Does Maryland officially have any marine mammals listed as state mammals? If so, name three (scientific AND common names please)?

◆ What mammal has become a major pest species in the Chesapeake bay? What is it that they do to the bay and why is this bad? How are they being managed?

◆ Name a mammal that was introduced into Maryland. Where did it originally come from and why was it introduced? (do not name a mammal discussed previously!)

◆ Name two federally-listed ENDANGERED MAMMALS of Maryland. What is the difference between being listed as endangered vs. being threatened (detailed answer here please)?

III. OWL PELLETS ANALYSIS

Latex gloves should be worn for this procedure!

Obtain an owl pellet and place it in a dissecting pan. Use probes and pins to tease apart the pellet and “dissect” out the mammal bones found within. Many of these bones are very small and extremely fragile so be careful!

There are example skulls of species commonly found in owl pellets as well as diagrams and keys to rodent skulls provided to help you identify the contents of your pellet.

Dissecting microscopes are also available to examine the pellet’s contents under higher magnification if necessary.

◆ What species did you find in your owl pellet (common and scientific names)?

◆ How many total animals do you estimate are contained in your pellet?

◆ What bones other than crania and mandibles were you able to find?

◆ What types of owls are found in Maryland? (yes, we know not a mammal, but obviously a predator of them. Scientific names please)