

# MASSACHUSETTS ENVIR<sup>THON</sup>

## Using Field Guides

- Field guides are arranged in a variety of formats. Become familiar with the guide you are using. Read the section on how to use the guide.
- Learn the vocabulary used to describe specimens. Field guides often have a glossary.
- Learn to use the range maps. You can often narrow the list of possible species when trying to identify a specimen by using the maps. Use caution as the maps may be accurate only on a large scale or you may be looking at a specimen that has not been recorded in your area before. Also consider that an animal might have been released in an area it would not normally inhabit.
- Many individual animals will differ in appearance from the example in the guide. Concentrate on identifying features.
- Some field guides use arrows to pinpoint key field marks or important distinguishing features. Learn what to look for.
- Narrow down choice by using keys, silhouettes, plates, table of contents, etc. where available. Identification is the process of 'narrowing down'.
- Observe the habitat an animal is found in. This is often a clue to its identity. Turtles, snakes and amphibians lack the mobility of birds & mammals and rarely leave their ideal habitat. You may chance upon a species outside of its known range (relocated, exotic, look-alikes, not yet identified in that area.)
- Different skills and observations are used to identify different groups of animals. Ask yourself questions.

**Birds** - size (house sparrow, robin, crow), body shape(plump, slender), wing design (rounded, sharply pointed, etc), bills (small & fine hooked, dagger like, stout & short, etc.), tails (forked, square, notched, rounded, pointed, etc.), behavior, flight pattern, songs or calls, coloration, habitat, range maps

**Mammals** - tracks (toes, claws, stride, etc.), skulls (size, features, etc.), dental formula (incisors, canines, pre-molars, molars), fur, antlers, scat, habitat

**Turtles** - arrangement of scutes that make up the shell, habitat

**Snakes** - arrangement of scales, anal plate, shape of the head, taper of the tail (wide, narrow), shape of the eye pupil, coloration (immature, mature), habitat

**Amphibians**- vocalizations, size, habitat

**Insects** - often dealing with various unlike stages of development, general appearance (size, shape, color), body parts (antennae, legs, wings, etc.), how it acts, habitat, sounds, odor, hardness of body.

**Fish** - color, fins, habitat, structure, measurements, mouth

- Practice! Practice! Practice! And then Practice some more!
- MA Envirothon uses the Peterson Field Guide series to Mammals, Eastern Birds, Freshwater Fishes, Insects, Reptiles & Amphibians, and Trees & Shrubs