



## Using Field Guides

*Observing, appreciating and then identifying a plant or animal is the first step toward an understanding of that species.*

- ◆ Field guides are arranged in a variety of formats. Become familiar with the various components of the guide you are using. Read the section on how to use the guide!
- ◆ Learn the vocabulary used to describe specimens. Field guides may have a glossary, the 'topography' of a bird, the structure of insects, the structure of fish, etc.
- ◆ Use localized guides when available then consult regional guides for additional information.
- ◆ 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 or has expanded its range.
- ◆ Some field guides use arrows to pinpoint key field marks or important distinguishing features. Learn what to look for.
- ◆ Narrow down choices by using keys, silhouettes, plates, table of contents, etc. where available. Identification is the process of 'narrowing down'.
- ◆ Observe the habitat in which an animal is found. 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-a-likes, not yet identified in that area, dispersing).
- ◆ Individual animals may differ in appearance from the example in the guide. Concentrate on identifying features. Use more than one resource.
- ◆ Various skills and keen observations are used to identify different characteristics within groups of animals. Continue to ask yourself questions.

Birds – size (house sparrow, robin, crow), body shape (plump, slender, etc.), wing design (rounded, sharply pointed, patterns, color), bills (small & fine, hooked, dagger like, stout & short), tails (forked, square, notched,

rounded, pointed, stiff), feet (perching, talons, toes, webbing), behavior, flight pattern, songs or calls, coloration, habitat, range maps?

Mammals – tracks (toes, claws, stride, size), skulls (size, features, placement of eyes), dental formula (incisors, canines, pre-molars, molars), fur, antlers, scat, vocalizations, habitat?

Turtles – arrangement of scutes that comprise the shell, shape and color of 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, color, patterns, 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, body 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.
- ◆ Suggested relevant state resources, for downloading or purchase, are listed at <https://massenvirothon.org/areas-of-learning/ecostations/wildlife/>



<https://www.mass.gov/masswildlife>

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