Lepidoptera – Butterflies

There are 6 butterfly families in the eastern US. Many butterfly species are very specific about their habitat and the time of day when they fly, which also makes identifying them a bit easier.

The landscape complexity of the landscape and the plant diversity affects the types of butterflies in one area. When thelandscape changes from one habitat to another (i.e. prairie to wetland) is where a great diversity of butterflies can be found.

A couple of interesting behaviors are hilltopping and mudpuddling. Hilltopping is where male and unmated females congregate on highest hill in the area. They are looking for a mate. It's the equivalent of our singles' bar scene! Mudpuddling is just as it sounds; butterflies cluster on the damp mud seeking salt and water.

Caterpillars are highly parasitized by flies and wasps who are attracted to them by the chemicals released from the injured plants they are munching. I have a photo of the remains of such a caterpillar.

Caterpillar parasitized by a wasp.

Butterflies are like the canary in the coalmine. They are great barometers for environmental issues because they are more observed and studied than other insect species. When one is endangered, it signals that many other species might be or

already are threatened.

Habitat destruction is the main reason we are losing many of our invertebrates and vertebrates. It's no different for butterflies. Butterflies require open areas; if these areas in our rural landscape are not maintained as open areas, they soon become filled with woods. Farming practices make other types of rural areas unfit for butterfly habitat and open spaces in urbanized areas such as parking lots and manicured lawns provide no nectar sources or host plants.

Here's a listing of references that I used for my info.

Danaidae (Milkweed Butterflies)
Danaus plexippus – Monarch

In 2000, it was discovered about half of our monarch population comes from the cornbelt between Nebraska and Ohio. This can be determined by the genotypes of the milkweed eaten by the caterpillars.

Hesperiidae (Skippers)
These butterflies get their common name from their rapid, skipping type of flight. They have hooked-antennae and mothlike bodies. Skipper larvae are quite distinctive and easy to identify. They have large heads and what appears to be a collar that defines their neck. There are about 300 species of skippers in North America; many are quite similar and are difficult to identify.

Eggs are laid singly on the food plant. Once the larvae hatch, they will form shelters by tying the leaves and grasses together in a tube. Many species of skippers feed only a night.

Epargyreus clarus – Silver-spotted Skipper
Thymelicus lineola – European Skipper

Lycaenidae (Blues, Coppers, Hairstreaks, Harvesters, and

Metalmarks)

Lycanenidae are also called gossamer-winged butterflies. One way of identifying the male from the female is by their front leg; the male legs are smaller than the females.

Blues are some of the first insects seen in spring.

Most larvae are plant feeders with the early instar feeding internally on the plants. They eat a wide variety of plants but legumes in the Fabaceae family are their favorites. The larvae are generally associated with ants because they produce honeydew. When honeydew production is low or the larvae is overworked, they can evert a pair of tentacles that agitate the ants, diverting their attention from the honey gland. There are some lycaenids that do not have a honey gland and their tentacles are permanently everted; these are not associated with ants.

Celastrina neglecta – "Summer" Spring Azure
Everes comyntas – Eastern Tailed-Blue
Satyrium caryaevorum – Hickory Hairstreak
Satyrium favonius – Oak Hairstreak (also *Fixsenia favonius*)

Nymphalidae (Brushfooted Butterflies)

The front legs are reduced in both sexes. This is a diverse group of butterflies in all ways: morphologically, biologically, and ecologically.

Their eggs are barrel-shaped or conical and laid in clusters that can number up to the hundreds. The larvae tend to flock together in their early instars; they may also spin a silken web binding several leaves together.

Boloria bellona – Meadow Fritillary
Cercyonis pegala – Common Wood-Nymph – Hodges #4587
Chlosyne nycteis – Silvery checkerspot
Limenitis archippus – Viceroy
Limenitis arthemis astyanax – Red-spotted Purple
Megisto cymela – Little Wood Satyr

Nymphalis antiopa – Mourning Cloak – Hodges #4432
Phyciodes tharos – Pearl Crescent
Speyeria Cybele – Great Spangled Fritillary
Vanessa atalanta – Red Admiral

Papilionidae (Swallowtails)

These butterflies are the largest insects. Swallowtails overwinter as pupa. When they emerge as adults, they lay their eggs on the tips of young host plant leaves. Eggs are usually laid singly but some species lay them in clusters. As a defense mechanism so birds don't eat them, many of the caterpillars look like bird droppings. They also can emit a foul odor and startle predators with a brightly colored defense display that looks like the forked tongue of a snake.

Papilio cresphontes – Giant Swallowtail
Papilio glaucus – Eastern Tiger Swallowtail
Papilio polyxenes – Black Swallowtail – Hodges #4159

Pieridae (Whites, Sulphurs, Yellows)

The butterflies in this family have spindle-shaped, ribbed eggs. This is unusual for other butterflies. They will lay them single on the host plant but there are a few, very few, that will cluster their eggs. When it's time to pupate, they secure themselves with a silk thread to their host plant.

Colias eurytheme – Orange Sulphur
Colias philodice – Clouded Sulphur
Pieris rapae – Cabbage White – Hodges #4197