

SOME TIPS ON BUTTERFLY WATCHING:



Finding Butterflies:

1. Seek out open areas with a variety of natural vegetation, especially flowering plants. Butterflies sometimes rest in the sun to warm their flight muscles (*basking*), and are *most* active during midday on a sunny, warm (~60 degree F), and windless day.
2. Walk slowly and watch carefully for flying butterflies and those perched on flower heads, blades of grass, leaves of shrubs and trees, and those resting on moist ground or along the edges of puddles. Some perched butterflies rest with wings open while others have their wings closed. They are often hard to notice unless you patiently and carefully observe your surroundings.
3. Pick a promising area that is relatively close to home and begin to explore at frequent intervals during the Spring/Summer season and at different times during the day from 9 am to 3 pm. Record your observations and make notes of date, species seen, weather conditions, temperature and hours spent exploring.
4. Adult butterflies can be found taking nutrients (*nectaring*) on flowers, from sap on tree trunks, rotten fruit, and animal scat. Often male butterflies are found on a favorite perch (*perching*) waiting for a passing female or are flying back and forth in a territory (*patrolling*) on the hunt for a mate. Males also gather on moist ground to take salts used in reproduction (*puddling*) and may be found flying at the top of hills (*hill-topping*). Caterpillars are sometimes observed feeding if you find the right larval food plant (*host plant*). Butterflies found feeding or mating are sometimes easier to approach for close and prolonged observation.

Identifying Butterflies:

- Close-focusing binoculars will help you see the details of pattern and color that are often necessary to identify butterflies.
1. When a butterfly is first observed in the field or garden, carefully notice as many features as possible BEFORE turning to a field guide.
 - a. Relative size (*large* (>2-1/2") - like swallowtails; *medium* (1-1/2 to 2-1/2") - like most brushfoots; or *small* (<1-1/2") - like grass skippers or blues) (*see Butterfly Families below*)
 - b. Shape of wings (rounded, pointed, or with forewings truncated)
 - c. Posture (open or closed wings) when perched
 - d. Color and pattern on the wings
 - e. Flight pattern (close to ground or higher) and flight behavior (wings flat or at an angle)

- f. Behavior (basking, nectaring, perching/patrolling, puddling, hill-topping, courtship/mating, ovipositing (laying eggs))

All of these observations will provide helpful clues. Your observation and identification skills will improve with continued practice and time spent in the field.

2. Try to place the butterfly in the correct family (*see Butterfly Families below*).
3. Butterflies are seasonal and each species flies at certain times during the year (***flight***), only in certain parts of the country (***range***), and in certain types of plant associations (***habitat***). A good field guide will help greatly with these aspects of butterfly watching.
4. Explore areas like fields of wildflowers, hilltops, canyons, stream sides, marshes, trails and roadsides in open space areas. All of these areas provide different habitats and should yield a variety of butterflies.

Most of all enjoy the time you spend outdoors and approach your quest with enthusiasm and be passionate about your pursuit of these beautiful creatures and the stories they have to tell.



BUTTERFLY FAMILIES:

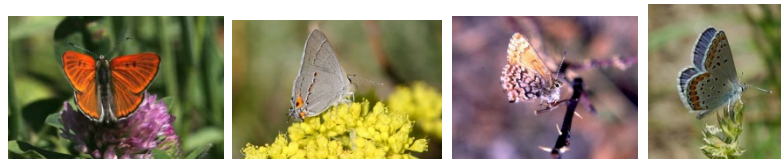
Parnassians and Swallowtails (*Large*)



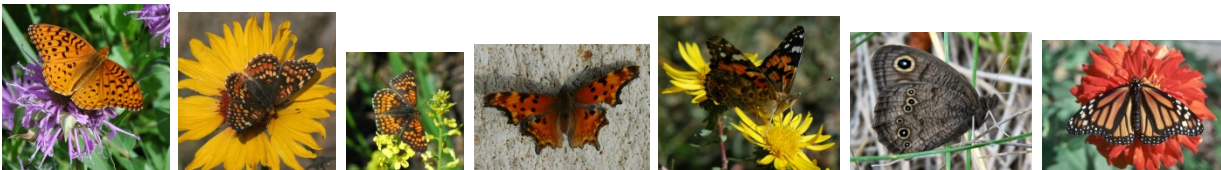
Whites and Sulphurs (*Medium*)



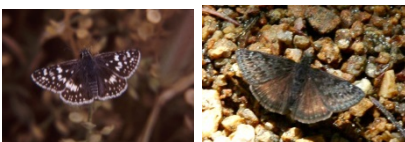
Gossamer-wing butterflies – Coppers, Hairstreaks, Elfins and Blues (*Small*)



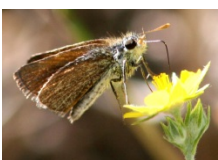
Brushfooted Butterflies – Fritillaries, Crescents, Checkerspots, Anglemings, Ladies, Satyrs, Milkweed Butterflies (Monarch, Queen) (*Small to Large*)



Spread-wing Skippers (*Small*)



Skipperlings (*Small*)



Grass Skippers (*Small*)



BUTTERFLY FAMILIES:



Family - Papilionidae

Parnassians and Swallowtails

Family - Pieridae

Whites and Sulphurs

Family - Lycaenidae

Gossamer-wing butterflies –

Subfamily – Lycaeninae

Coppers

Subfamily – Theclinae

Hairstreaks

Subfamily – Polyommatae

Elfins and Blues

Family – Nymphalidae

Brush-footed butterflies –

Subfamily – Heliconiinae

Fritillaries

Subfamily – Nymphalinae

Crescents, Checkerspots, Anglewings,
Ladies

Subfamily – Satyrinae

Satyrs

Subfamily – Danainae

Milkweed Butterflies (Monarch, Queen)

Family – Hesperidae

Skippers –

Subfamily – Pyrginae

Spread-wing Skippers

Subfamily – Heteropterinae

Skipperlings

Subfamily – Hesperinae

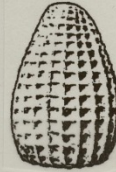
Grass Skippers

Life Cycle

- Butterflies undergo *complete* metamorphosis

- life cycle consists of four stages:

1. egg (10 days)



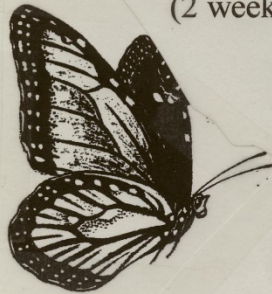
2. larva (caterpillar) (2-8 weeks)



3. pupa (chrysalis) (10 days)



4. adult (2 weeks)



Butterfly Life Cycle and Behaviors



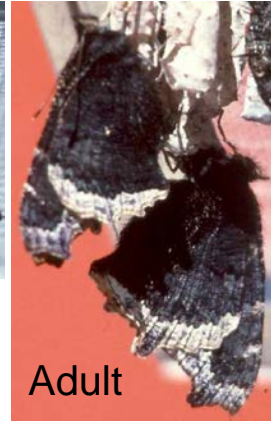
Eggs



Caterpillar



Pupa



Adult

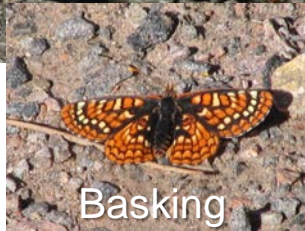
Ovipositing



Nectaring



Puddling



Basking



Mating



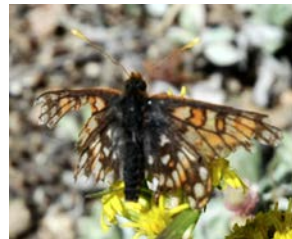
Mating



Life cycle begins again



Prey



Old Age

Photos by: Cathy Cook & Jan Chu

(Volunteer Naturalist Cathy Cook, 2015)