Firefly Field Guide

Identify fireflies around Athens, GA!

**Big Dipper Firefly**
*Photinus pyralis*
- Yellow-green flashes of light
- J-shaped flight path
- Quarter-sized body length

**Flash pattern:**
- 6-8 second interval

**Candle Firefly**
*Pyraactomena angulata*
- Orange flashes of light
- High flier
- Quarter-sized body length

**Flash pattern:**
- 2-4 second interval

**Blue Ghost**
*Phausis reticulata*
- Blue-green glowing light
- Flies low to the ground in dark woods
- Grain of rice-sized body length

**Flash pattern:**
- Varies

**Black Firefly**
*Lucidota atra*
- No light organ or light signals
- Flies during the day; can be found on blades of grass
- Quarter-sized body length

**Flash pattern:** None!

**Twilight Bush Baby**
*Photinus australis*
- Yellow-orange, short flashes of light
- Flies low to the ground
- Dime-sized body length

**Flash pattern:**
- 2-3 second interval

**Photuris Fireflies**
*Photuris species* (a group of fireflies)
- Green flashes of light
- Fast, powerful flier; any height
- Long legs, strong, hunchback

**Flash pattern:** Varies

**Snappy Single Syncs:**
- Blue Ghost
- Fireflier Tips

**Flash pattern:**
- <1 second interval

**Flashbulb Fireflies:**
- 4 second interval

Find fireflies:
- In meadows
- Near water
- By woods
- Near leaf litter

Find more! Check out "Fireflies, Glow-worms, and Lightning Bugs" by Lynn Faust!

Every type of firefly comes out at a specific time!
- Day
- Twilight
- Night

Safety:
- Stay with your adults or let them know where you're going!
- Wear long pants, sleeves, and close-toed shoes if not on pavement!
- Bring lights! Red is preferred. Turn off near fireflies.
- Wear bug spray (try to avoid hands if catching fireflies)

Images from iNaturalist.
Reference:
Observe Fireflies!

1. Use your net, hands, or a Mason jar to catch fireflies.

2. Hold firefly gently in your hand (can use a magnifying glass!)

3. Can keep firefly in a jar while observing, & release all fireflies where you found them!

Look out for:

- **Antennas**
  - Shape, thickness

- **Scutellum**
  - Triangular; differs in color and shape

- **Head Shield**
  - Shape, color (brown to pink), and pattern (of black spot)

- **Wing Cover**
  - Shape, color (ranges from black to gray), presence of white border

These fireflies look like twins, but they are different species!

- **Big Dipper Firefly**
  - Photinus pyralis

- **Spring Treetop Flasher**
  - Pyractomena borealis

Notice how the head shield shape and pattern differs. The Big Dipper Firefly has a long, narrow body that ends in a pointed tip compared to the Spring Treetop Flasher.
Firefly Diversity

Photuris species

This Photuris has a brown head shield and long black spot compared to the Big Dipper, which is pink with a round black spot!

Big Dipper Firefly

The Photuris has long legs, which improves its speed and agility!

Black Firefly

See how thick the antennas are—this is because they use antennas to sense chemical signals during the day!

Wingless females cannot fly and signal using green glow spots!

Female fireflies have one light organ segment, males have two!

Twilight Bush Baby

Females are often found on leaves, and can be harder to find than males, who display while flying through the air.

Some fireflies have wingless females, who do not develop wings and kept many traits from their larval state.

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