

# BSA Insect Study Merit Badge

## Prerequisite Work

The requirements for the Insect Study Merit Badge were revised as of January 1, 2009. HMNS will follow the new requirements. The most important change is a pinned specimen insect collection in the old requirements has been replaced with an insect identification scrapbook in the new requirements.

The majority of the work for this scrapbook must be done before a scout attends the Insect Study class at HMNS. Part "a" of requirement 4 will be done before class, part "b" will be done during class. **Each scout should locate and identify to the best of his ability 20 insects and complete an Insect Identification sheet on all 20 insects before the class.** During the class, the scouts will add information to their scrapbooks.

Requirement 4 states:

*Do the following:*

- a. Observe 20 different live species of insects in their habitat. In your observations include at least four orders of insects.*
- b. Make a scrapbook of the 20 insects you observe in 4a. Include photographs, sketches, illustrations, and articles. Label each insect with its common and scientific names, where possible. Share your scrapbook with your merit badge counselor.*

The following pages will give instructions to complete Requirement 4a. All other requirements will be completed in class.

## Finding Insects

Insects can be found in every environment except the oceans, therefore the key to finding more insects is to look in more places.

Remember! Spiders, centipedes, and millipedes are NOT insects and do not count in the scrapbook! Insects always have 6 legs. The larval form of many insects look more like worms, but if inspected closely 6 legs can be seen. Larval forms CAN be used.

Look for insects in these places:

- Under boards and rocks – Look for earwigs, ants, crickets, beetles, termites.
- In or around streams, ponds, lakes – Look for mayflies, dragonflies, damselflies, stoneflies, caddisflies, aquatic beetles, tiger beetles, true bugs, flies.
- Under loose bark, in logs and stumps – Look for termites, ants and beetles — particularly bark beetles, wood boring beetles, scarab beetles.
- In grass or on crops – Look for grasshoppers, walkingsticks, praying mantids, beetles, flies, aphids, leafhoppers, spittlebugs, plant bugs.
- On trees or other vegetation – Look for cicadas, katydids, butterfly and moth caterpillars, praying mantids, etc.
- In the air – Look for butterflies, moths, flies, bees, wasps, beetles, leafhoppers, grasshoppers.
- Around outdoor lights at night – Look for moths, beetles, ant lion adults, mosquitoes.
- In, around or on flowers and ornamental plants – Look for thrips, plant bugs, beetles, bees, wasps, ants, aphids, scale insects, walkingsticks, insect galls, butterflies, moths.
- In houses – Look for crickets, cockroaches, beetles, ants, flies, mosquitoes, moths, termites, silverfish.
- In clothes, furniture, stored food – Look for clothes moths, carpet beetles, flour beetles, bean weevils.

## Recording Information

**Print out the Insect Identification sheet on the following page. Two insects can be recorded on one page, so 10 copies will be needed.**

When you find an insect:

1. Identify the name of the insect. Order and scientific name will be completed in class.
  - a. For help go to [www.bugguide.net](http://www.bugguide.net). Use the search box in the top right corner. Enter what is known, such as “beetle”, “butterfly”, or “walking stick”. Or use the Clickable Guide to the left of the web page. Look through the pictures to try to identify the insect.
  - b. If the insect cannot be positively identified, catch the insect and put it in a jar. Insects can be put in the freezer to preserve them. Bring the insect to class to be identified by an entomologist.
2. Record **observations** on an **Insect Identification** sheet.
  - a. Examples of “**Type of habitat**” are grass, pond, forest, house, air, bushes, etc.
  - b. “**Describe location**” is more specific, such as “sunny lawn with trees and bushes nearby, mostly dry with no water nearby.”
  - c. To record “**How is the insect interacting with its environment?**” describe as accurately as possible what you think the insect is doing, such as “burrowing under grass”, or “gathering nectar from flowers”.
  - d. Record the “**number of insects**” of the same kind in this location.
3. Sketch the insect as accurately as possible (in color is better). If the insect is positively identified, a picture of it can be printed from the internet.

# INSECT IDENTIFICATION

Insect # \_\_\_\_\_

Common Name: \_\_\_\_\_

Order: \_\_\_\_\_

Scientific Name: \_\_\_\_\_

**Observations:**

Type of habitat: \_\_\_\_\_

Describe location: \_\_\_\_\_

\_\_\_\_\_

How is the insect interacting with its environment?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

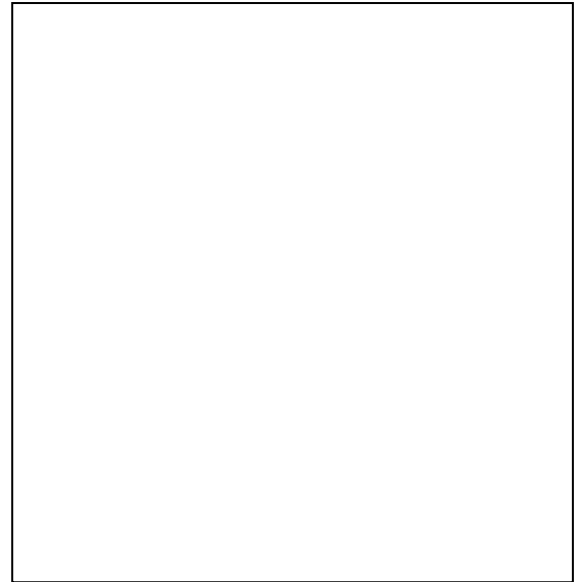
\_\_\_\_\_

\_\_\_\_\_

# of insects \_\_\_\_\_ Time: \_\_\_\_\_

Notes:

Sketch:



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# INSECT IDENTIFICATION

Insect # \_\_\_\_\_

Common Name: \_\_\_\_\_

Order: \_\_\_\_\_

Scientific Name: \_\_\_\_\_

**Observations:**

Type of habitat: \_\_\_\_\_

Describe location: \_\_\_\_\_

\_\_\_\_\_

How is the insect interacting with its environment?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# of insects \_\_\_\_\_ Time: \_\_\_\_\_

Notes:

Sketch:

