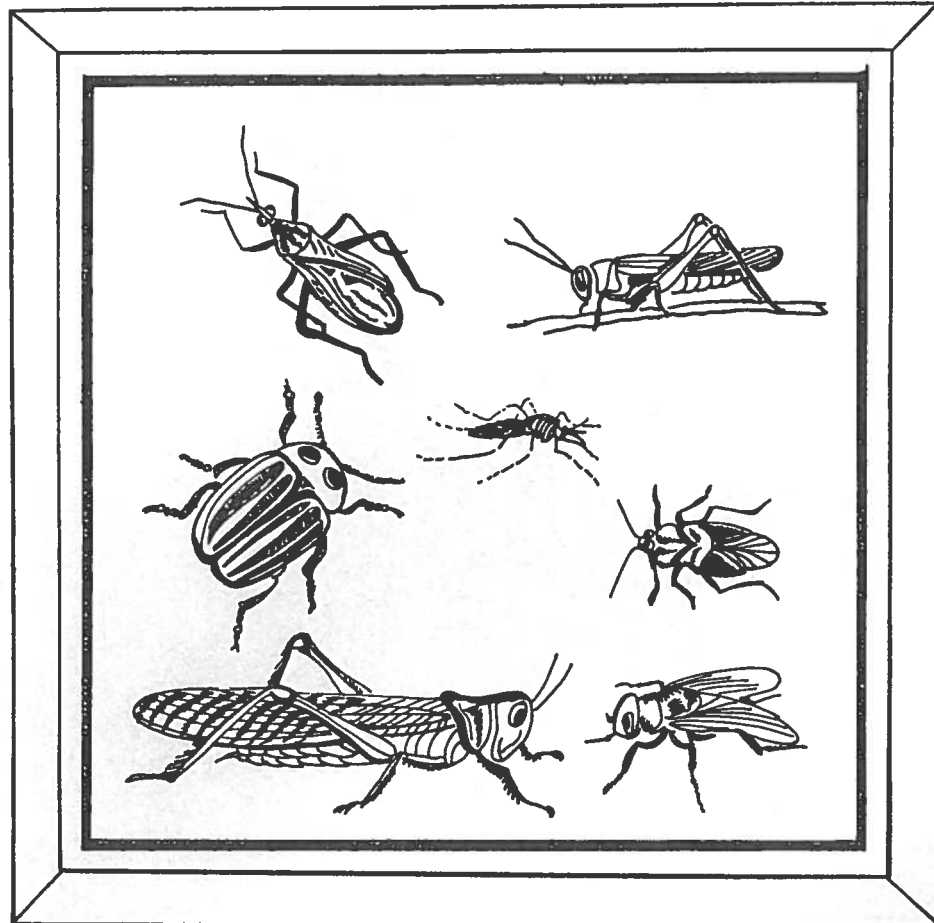


DISCOVERING THE WORLD OF INSECTS



ENTOMOLOGY

4-H NATURESPACE ACTIVITIES

Walter Gojmerac
University of Wisconsin-Extension Specialist
Entomology Department

DEAR 4-H MEMBERS AND LEADERS:

Welcome to the wonderful world of insects.

The study of the complex insect world is called ENTOMOLOGY. This project will help you understand the insect world and learn many new things. You will look closely at insects to see their many interesting shapes, colors and sizes. You will find evidence of where insects have been, how they eat, and what they eat. You will discover, experiment, collect, mount, color and draw insects. Use your imagination and your ability to fantasize.

Each activity can be completed in about one hour. Have fun.

The Authors,

Walter Gojmerac
Mary Thiry
Gordon Harris
Sue Bridson

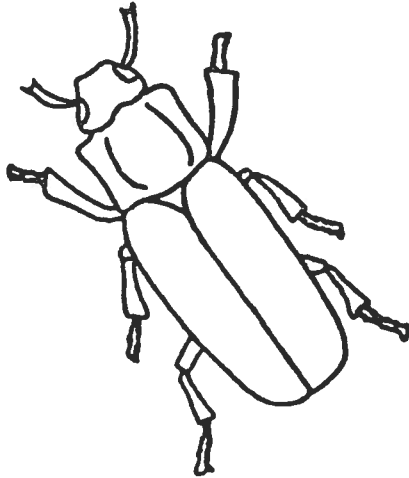


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INSECTS ARE INTERESTING

All living things fit into two groups scientists call "kingdoms" -- the animal kingdom and the plant kingdom. Insects are in the animal kingdom.

There are more different kinds of insects in the world than all other animals put together. Scientists believe that there are over one and one-half million different kinds of insects, but only about 700,000 have been named. Some of these insects are so small you need a microscope to see them. Others are several inches in size. They not only creep and crawl, they swim, water-ski, fly, and hitchhike rides on other animals.

Insects can be found practically anywhere people live and travel in this world -- in backyards, gardens, on farms, in cities, and even in homes -- during all seasons.

INSECTS ARE IMPORTANT

Insects are a very important part of our NATURESPACES. Many animals depend on insects to live. Their small size and large numbers make them choice food for small animals such as fish, skunks, moles and birds, as well as for other insects like praying mantids and ground beetles. Some insects that live in the soil feed on decaying plants and animals. They do the essential job of breaking waste into smaller pieces that return to soil to feed plants.

People use insects to do many things -- to pollinate crops, to produce food such as honey, to manufacture cloth fibers such as silk, and even as predators to control harmful insects. Insects are also used by scientists for research in genetics, medicine and nutrition.

Insects can be pests. They compete with us for food by eating plants and animals. They can destroy the beauty of our forests and city trees by feeding on them, and spreading plant diseases such as blights and Dutch Elm disease. They also carry diseases, which can be annoying or even deadly to us, our pets and our livestock. Malaria, yellow fever and sleeping sickness are a few of the life-threatening illnesses that insects spread.

Insects are not pests by choice. They are just trying to survive. Learning about insects helps us better understand ways to benefit from those that are helpful and avoid those that are pests.

THINGS MEMBERS WILL GAIN FROM THIS PROJECT

This project will introduce 4-H members to the study of insects. It will help members:

- 1- Learn about life histories and habits of insects;
- 2- Understand relationships between insects and man, recognizing those that are helpful and those that are not;
- 3- Understand biological concepts;
- 4- Use things they learn in "doing" activities;
- 5- Become aware of job opportunities related to entomology.

PROJECT GUIDELINES

FIRST-YEAR PROJECT MEMBERS:

Complete Module I before doing other modules.

If you are 10 to 13 years old, complete one activity of your choice from modules II, III, IV and V.

If you are 14 and older, complete one activity of your choice from modules II, III, IV, V and VI.

SECOND-YEAR PROJECT MEMBERS:

Review Module I.

If you are 10-13 years old, complete one new activity from modules II, III, IV and V.

If you are 14 and older, complete one new activity from modules II, III, IV, V and VI.

RESOURCES

(or Where to Go for More)

At the end of many of the activities is a section called RESOURCES that suggests additional resources you may find helpful.

These resources include books and publications, as well as films, catalogs and other sources. In some cases, addresses have been included where you can order free or low-cost materials.

Don't forget to use the library. To find books about insects, check with your local library. If specific titles are unavailable, they can often be ordered through interlibrary loan services. Your librarian may be interested in setting up a display about insects that could include the 4-H Insects Project Guide, available books, literature from your county Extension office and specimens that 4-H'ers collect.

Your county has a local office of the University of Wisconsin-Extension. A number of publications about insects should be available there, as well as people who are knowledgeable about insect management and control.

A number of films about insects are available for rental through the University of Wisconsin-Extension, Bureau of Audio Visual Instruction (BAVI), P.O. Box 2093, Madison, WI, 53701, phone (608) 262-1644.