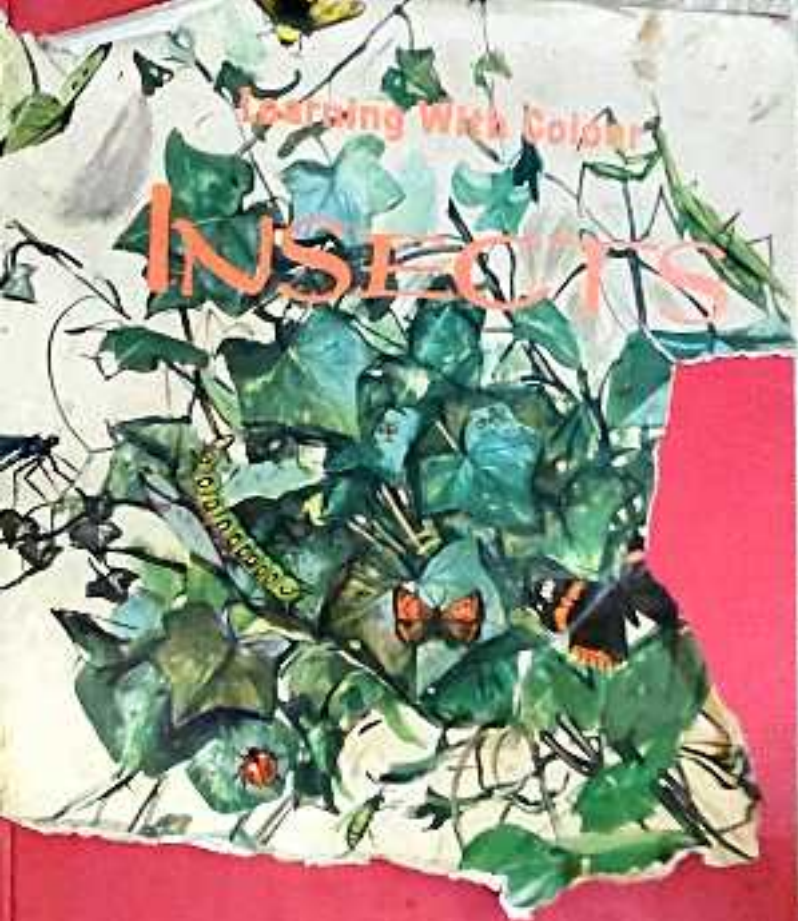


Learning With Colour

# INSECTS





**Learning With Colour**

The Colourful World of

# Insects

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The insecton ancestors were probably the trilobites, marine arthropods which appeared five hundred million years ago. The first real insects did not appear until the Carboniferous Era, two hundred and twenty million years ago.

**WHAT IS AN INSECT?** Page 22

The word "insect", from the Latin *insectum*, simply means 'an animal divided into sections'. The insect's larva undergoes a metamorphosis and becomes a perfect insect.

**THE CLASSIFICATION OF INSECTS** Page 30

Insects may be divided into two groups: winged and wingless.

**THE DOUBLE LIFE OF INSECTS** Page 33

The young insect is called either a 'larva' or a 'nymph' according to the way its shape, or organs and habits change throughout its growth. A 'nymph' gradually becomes an insect identical to its parents (incomplete metamorphosis), whereas a 'larva' has to undergo a complete metamorphosis in order to become a perfect insect.

**THE GREAT POLLINATORS** Page 41

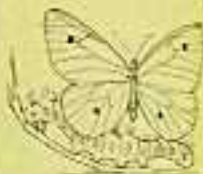
The buzzing insects and the wind are Nature's greatest pollinators. If bees and butterflies were suddenly to disappear, our orchards would bear much less fruit than they did the year before. These insects carry pollen, the yellow powder which is vital for the growth of fruit, from flower to flower.

**AQUATIC INSECTS** Page 51

Lakes, rivers, rapids and flooded plains... all fresh water is the home of the aquatic insects. Some species prefer calm water, others fast-flowing and highly-oxygenated water. Good swimmers like the giant water beetles can move about very quickly using legs as well designed as paddles.

**SILK PRODUCERS** Page 57

The silk-producing animals bred by man are either caterpillars or spiders. The world's foremost producer of natural silk is the caterpillar of a Chinese moth known as the *Bombyx mori*. The Chinese knew how to use silk from the silkworm 2,600 years before Christ. The secret was jealously kept in the East and only became known to Europeans from the sixth century onwards. Today its main competitors are the *Bombyx mori* and the *Nephila* spider of Madagascar, artificial silk, and the *Ptilinopus* moth of India, which leaves its cocoon without breaking the thread.



## THE ARTISTS

Page 45

In some cases the insects seem to rival man in artistic talent. Among them are to be found musicians, painters, sculptors and dancers.

## ANTS AND TERMITES

Page 73

The evolution of the ants was progressively halted (and before their higher insects created their own civilisation). Through perseverance the primitive termites became the greatest architects of the animal world.

## NAVAGING INSECTS

Page 76

Half of all the insects are destroyers of man's crops. Sometimes they will even attack his manufactured goods. Navaging insects are equipped with powerful faculties and comprise stink and bed bugs, flower weevils, fruit and grain growers, wood borers, ear pliers, and sheep ticks. The sap-sucking insects have stinks and sharp proboscis.

## THE PARASITES

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Parasites spend their life on plants or animals and feed at their host's expense. Even man does not escape these frightful little creatures. In the middle of the twentieth century he is still the prey of insect parasites and infectious agents. The development of more valiant and more effective means of protection.

## THE INSECTS' ENEMIES

Page 90

Insects have many natural enemies: birds, insectivorous insects, reptiles and natural phenomena. Man in his ever-quickening conquest of the Earth has become a big destroyer of insects, both intentionally in his use of increasingly more powerful insecticides, and unintentionally by the clearing of virgin territory or the collection of rare species.

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