

VOCABULARY

(words highlighted in the text)

- ABDOMEN** - third or end part of an insect's body. The abdomen is attached to the thorax or the cephalothorax.
- ANTENNAE** (singular - antenna) - sensory organs on most arthropods' head. The antennae are used to smell, taste, feel and sometimes hear.
- ANTICOAGULANT** - a substance that interferes with the process of blood clotting
- ANUS** - the posterior, or end, opening of the digestive tract
- APPENDAGES** - subordinate or derivative body parts, such as legs or antennae
- ARTHROPOD** - a phylum of invertebrate animals characterized by segmented bodies, jointed appendages, bilateral symmetry and an exoskeleton
- BILATERAL SYMMETRY** - a body plan in which similar anatomical parts (legs, eyes, etc.) are arranged on opposite sides of a median axis so that the individual can be divided into essentially identical halves
- CAMOUFLAGE** - a means of blending in with one's surroundings
- CARAPACE** - hard shield covering the cephalothorax in many crustaceans and arachnids
- CEPHALOTHORAX** - the fused head and thorax of arachnids and crustaceans
- CHELICERA** - a type of mouthpart in arachnids used for grasping
- CHITIN** - a hard material that forms the exoskeleton of insects and other arthropods
- CHRYsalis** - the pupal stage of moths and butterflies
- CLOSED CIRCULATORY SYSTEM** - complex circulatory system composed of a heart pumping blood through a network of arteries and veins
- COCOON** - a protective covering for developing pupae of moths. The cocoon is spun from silk fibers produced by the larvae.
- COMPLETE METAMORPHOSIS** - the insect goes through four stages of development: egg, larva, pupa, adult. The immature insect does not resemble the adults of the species. (See incomplete metamorphosis for comparison.)
- COMPOUND EYES** - eyes made up of many tiny units. Each unit has a separate lens, is shaped like a hexagon, and is connected to special cells. Each lens forms one little picture, and all the lenses together form a mosaic composite of the world around the insect.
- CORPUSCLE** - a living cell, such as a blood cell, which is not incorporated into the tissue, but flows freely throughout the body
- CROP** - an enlargement at the base of the esophagus that serves to store food before it is digested
- CUTICLE** - a hard outer covering of an arthropod's body secreted by the skin
- DESICCATE** - to dry
- DIAPAUSE** - a period of dormancy during which growth and metamorphosis cease: usually occurs in the pupal stage and often occurs in the winter
- EMBOLIS** - stiff spur on the pedipalp of the male tarantula; contains the spermatophore
- EPIGASTIC FURROW** - female genital slit on the abdomen of spiders, between the anterior book lungs
- EPIGYNE** - structure on the underside of the abdomen of spiders to produce sperm
- ESOPHAGUS** - a tube used to conduct food located at the end of the pharynx
- EXOSKELETON** - a hard, protective covering found on arthropods
- FEMORAL HOOKS** - hooks on the front legs of a male tarantula which are used in mating
- FOVEAL GROOVE** - depression on the carapace in tarantulas where the muscles of the sucking stomach are attached
- FRASS** - the word for insect waste material
- GANGLION** (plural - ganglia) - a mass of nerve cells which transmit nerve impulses
- HABITAT** - the natural surroundings in which plants or animals live
- HEMOLYPH** - the circulating fluid in the open tissue spaces of arthropods; arthropod blood
- INCOMPLETE METAMORPHOSIS** - The insect goes through three stages of development: egg, nymph, adult. The immature insect resembles the adult. Only small changes occur; for example: an increase in size or the development of wings. (See complete metamorphosis for comparison.)
- INSTAR** - the stage of an arthropod between molts. Different stages are denoted by numbers.
- LARVA** (plural - larvae) - an immature insect after emerging from the egg, often restricted to insects in which there is complete metamorphosis
- MALPIGHIAN TUBULES** - a group of small, tubular, excretory and water-regulating glands that open into the hind part of the digestive tract in most insects and spiders

MANDIBLE - upper or lower part of the jaw

METAMORPHOSIS - the change in body form between the end of immature development and the adult phase

MIDGUT - the thin-walled front part of the stomach of many invertebrates

MOLTING - to shed feathers, hair, shell, antlers or an outer layer periodically. Arthropods molt their entire exoskeleton; this is also called ecdysis.

NICHE - a habitat that supplies all the basic needs necessary for the survival of a species or individual

NYMPH - the young or immature insect of a species which undergoes incomplete metamorphosis

OMMATIDIA (singular - ommatidium) - the structural elements forming the compound eye: each element is a complete photoreceptor (a receptor for light stimuli) in itself

OPEN CIRCULATORY SYSTEM - circulatory system composed of a simple heart that pumps hemolymph through the open body cavity

OVIPOSITOR - egg-laying apparatus in female insects

PARTHENOGENIC - ability to reproduce without mating. This is also called asexual reproduction.

PEDIPALPS - in spiders, two appendages located on either side of the mouth often modified for special functions, such as sensory, or for use in reproduction

PHARYNX - a differentiated part of the digestive tract that connects the mouth with the esophagus; often a well-adapted pump

PHASMID - any insect of the order comprising of walkingsticks and leaf insects

PHYLUM (plural - phyla) - one of the primary divisions of the animal kingdom

PIGMENT - a coloring matter in animals or plants, especially in a cell or tissue

PROPOLIS - a brown substance made by bees from resin collected from tree buds. It has a waxy consistency and is used by bees as cement for repairing hives.

PUPA (plural - pupae) - in complete metamorphosis, the inactive stage of insect development during which the larva transforms into the adult form

RAPTORIAL LEGS - forelegs modified for grabbing and holding prey

SENSILLA (singular - sensillum) - specialized structures, such as hairs, on an organism that collect information from the environment and transmit the information to the central nervous system

SETAE (singular - seta) - tactile or chemoreceptors

SIMPLE EYES - these eyes are not as complex as compound eyes. They can detect only light, dark and motion.

SPECIES - a group of individual organisms sharing the same structures and characteristics which are capable of breeding and producing fertile offspring

SPERMATHECA - a sac-like structure in female arthropods, especially insects, in which sperm can be stored

SPERMATOPHORE - a packet containing sperm

SPINNERET - the structure in spiders through which silk leaves the silk glands and exits the body

SPIRACLE - an external opening of the tracheal system. Spiracles are located along the sides of the body in many arthropods.

STRIAE (singular - stria) - attachment points for the tarantula leg muscles

STRIDULATION - in insects, the act of producing sound by rubbing two parts of the body together

SUBSTRATE - the substance, such as soil, on which an organism lives

SWARM - an emigration from the hive by the queen and a large number of honeybees to start a new colony

THORAX - the middle of three sections of an insect body. The legs and wings are attached to the thorax.

TRACHEAE (singular - trachea) - tubes that distribute oxygen throughout many arthropods' bodies

TYMPANIC ORGANS - auditory organs composed of a thin membrane, called the tympanic membrane, and a group of sensilla

URTICATING HAIRS - hairs thrown from the abdomen of a tarantula as a defense

VENATION - an arrangement or system of veins, as in an insect's wing