

Common Arthropods - Photo-Key Field Guide*

Ethiopia's Church Forests - Dr. Alemayehu Wassie & Dr. Meg Lowman

Class Insecta - Insects (head, thorax, abdomen, antennae, 6 legs)



Fly

Order Diptera - flies, mosquitoes: single pair of wings, hind wings reduced to club-like balancing organs. Pollinators, parasites, predators and decomposers. 130 families, over 122,000 species.



Mosquito



Scarab

Order Coleoptera - beetles: two hardened front wings (covering two membranous hind flying wings). Includes Scarab Beetles and Weevils. 166 families, over 370,000 species.



Weevil

Order Hymenoptera - ants, wasps, bees, sawflies: Most have 2 pair of wings for flying and a modified ovipositor used for stinging. Pollinators, parasites, predators and scavengers. 91 families, over 198,000 species.



Ant



Wasp on Nest



Butterfly

Order Lepidoptera - butterflies, moths, skippers: larva are caterpillars. Butterflies are diurnal; moths are nocturnal. Wings have thousands of scales making the colors and patterns. Mouthparts form a proboscis for drinking liquids. 127 families, over 165,000 species.



Butterfly

Mouth

Order Orthoptera - grasshoppers, katydids, crickets: most have large wings, front pair are hard and protect the hind flying wings. Powerful hind legs for jumping or kicking. Chewing mouthparts. Grasshoppers are diurnal and



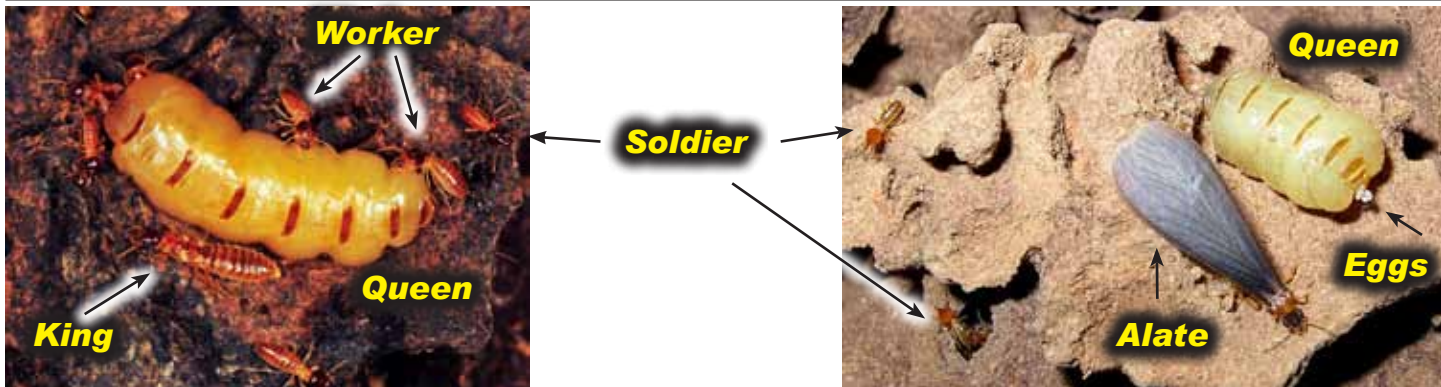
Grasshopper

herbivores, others are omnivorous or predacious. Katydids are nocturnal. 28 families, over 20,000 species.



Katydid

Order Isoptera - termites: Social insects living in colonies up to one million. Separated into castes; royalty, alates, soldiers, workers. Soldiers and workers do not have eyes, but queens, kings and alates do.
7 families, over 2750 species.



Order Blattodea - cockroaches: typically oval and flattened bodies. Head often covered by shield like covering from the top of thorax. They are very sensitive to vibration and can run fast to avoid danger.
6 families, over 4500 species.



Order Hemiptera: 2 pair of wings. Mouthparts form a "beak" to pierce and suck. Contains suborders Heteroptera "true bugs", Auchenorrhyncha 'plant-, leaf- & tree-hoppers, cicadas), Sternorrhyncha "aphids & scale insects". 134 families, over 82,000 species.



Order Odonata - dragonflies, damselflies: excellent fliers with large eyes make them effective aerial predators. Larva are aquatic predators.
30 families, over 5500 species.



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Funded by Tree Foundation treefoundation.org
& National Geographic nationalgeographic.com

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Order Dermaptera - earwigs: abdominal pincers are characteristic. Most have short front wings and fan shaped hind wings folded underneath. Found in leaf litter, under bark or in crevices.
10 families, over 1900 species.



Order Neuroptera - lacewings, antlions: predators with large eyes and chewing mouthparts. Long antennae with four net-veined wings. Larva are predatory or parasitic.
17 families, over 4000 species.



Order Mantodea - mantids: very mobile triangular head with large eyes, diurnal predator, raptorial front legs.
8 families, over 2000 species.



Order Phasmatodea - walkingsticks: slow moving herbivores, usually nocturnal, camouflaged as a stick, some have wings.
8 families, over 2000 species.



Order Thysanoptera - thrips: very small and slender with 2 pair of narrow hair fringed wings. Large eyes, short antennae and sucking mouthparts. Can be serious agricultural pests
8 families, over 5000 species.





Millipede

Class Diplopoda -
Millipedes: elongate body with numerous segments with two pair of legs per segment. Slow moving and many coil up or produce toxic chemicals for self defense. Herbivores.
13 orders, 115 families, over 100,000 species.



Millipede

Class Chilopoda - Centipedes: elongate and flattened body with at least 16 segments with one pair of legs per segment. Last pair of legs are always the longest, first pair modified into fangs. Fast moving predators.
4 orders, 22 families, over 3000 species.



Centipede

Class Arachnida - Arachnids (eight legs)
12 orders, 450 families, over 75,500 species.

Order Araneae - spiders: two body parts (cephalothorax & abdomen). Eight legs with pair of venom injecting fangs, produce silk from spinnerets at tip of abdomen.
100 families, over 40,000 species.



Spider



Spider

Order Scorpionida - scorpions: large pincer-type pedipalps and venomous stinger for hunting and defense at tip of "tail", eight legs. Nocturnal predators.
9 families, over 1400 species.



Scorpion

This mother scorpion is protecting her babies by carrying them on her back until they can find food for themselves.

Order Acari - ticks and mites: small bodies with eight legs. Most are less than 1mm and can be parasites on mammals, reptiles, insects and birds.
300 families, over 30,000 species.



Two Ticks

There two ticks on the side of this toad and they are full of the toad's blood!

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