

No. 5912

Insect X-Rays and Picture Cards



We've printed and laminated photographs of 36 "bugs". On the top of the card is the top of the bug. Flip the card over to see the underside of the insect. Match all of the photographs to the x-rays. Place the x-rays on the top of the card to see both internal and external structures of the insects.

True insects are members of the class Insecta, distinguished from all other arthropods (arachnids, crustaceans and others) in part by having ectognathous, or exposed mouthparts. Insects always have three body parts: head, thorax and abdomen. Many insect groups are winged as adults and usually have two antennae. All insects have exoskeletons. An exoskeleton is made of chitin, a material that resembles our fingernails. Insects have no bones.

True bugs are members of the order of Hemiptera. They have symmetrical piercing and sucking mouthparts housed in a "beak". Bugs are limited to a liquid diet.

Spiders are neither insects nor bugs. They belong to the Arthropod group, from the Arachnid family. Distinctive characteristics of the spiders are: eight walking legs, simple eyes and piercing fangs. Spiders do not fly.

All the creatures belong to the Kingdom Animalia and Phylum Arthropoda. True insects and bugs belong to the class insecta, while animals such as centipedes belong to chilopoda and spiders and scorpions belong to class arachnida.

Scientific Name:
Trypoxylus Allomyrhina
Dichotomus
Order: Coleoptera
Diet: Larvae eat mainly rotten wood. Adults eat sugary liquids.
Size: 35-90 mm (1½-3½")
Locale: Rainforests in Costa Rica and the Amazon Basin



Scientific Name:
Xylotrupes Gideon
Order: Coleoptera
Diet: Decaying wood and leaves.
Size: 45-65mm (1¾-2½")
Locale: Malaysia



Scientific Name:
Trichogormphus Martabani
Order: Coleoptera
Diet: Nectar, sap, fruit.
Size: 45 mm (1¾")
Locale: Thailand



Scientific Name:
Cetonia Aurata
Order: Coleoptera
Diet: Flower pollen.
Size: 17 mm (0.65")
Locale: Europe and America



Scientific Name:
Chalcosoma caucasus
Order: Coleoptera
Diet: Fruit and decaying vegetation.
Size: 75-130 mm (3-5")
Locale: Malaysia



Scientific Name:
Torynorrhina Flammea
Order: Coleoptera
Diet: Fruit and nectar.
Size: 35 mm (1½")
Locale: Thailand



Scientific Name: *Macro Gyrus Striolatus*
Order: Coleoptera
Diet: Injured or dead insects in or on the water.
Size: 14-18 mm (½-¾")
Locale: Eastern Australia



Scientific Name:
Eupatorus Birmanicus (Female)
Order: Coleoptera
Diet: Rotting fruit and sap.
Size: 6 cm (2½")
Locale: Thailand



Scientific Name:
Odontolabis Elegans
Order: Coleoptera
Diet: Nectar and sap.
Size: 25-85 mm (2-3¼")
Locale: Thailand



Scientific Name:
Lucanus Elaphus
Order: Coleoptera
Diet: Rotting wood and tree sap.
Size: 80 mm (3¼")
Locale: Europe, Asia and Taiwan



Scientific Name: *Locasta Migratia*
Order: Coleoptera
Diet: Soft wood and rotting vegetation.
Size: 50-100 mm (2-4")
Locale: Thailand



Scientific Name:
Cyrtotrachelus Dux Boheman
Order: Coleoptera
Diet: Bamboo shoots.
Size: 18-38 mm (¾-1½")
Locale: Bangladesh, China, India, Myanmar and Sri Lanka



Scientific Name:
Dorysthenes Walkeri
Order: Coleoptera
Diet: Sugar cane and vegetable matter.
Size: Males can be 73 mm (3") long
Locale: South East Asia and Thailand



Scientific Name:
Pachyteria Equestris
Order: Coleoptera
Diet: Leafy vegetation.
Size: 30 mm (1¼")
Locale: Indonesia, Malaysia



Scientific Name:
Anoplophora glabripennis
Order: Coleoptera
Diet: Rotting wood, plants.
Size: 25 mm (1")
Locale: Thailand, Malaysia



Scientific Name: *Batocera Humeridens*
Order: Coleoptera
Diet: Rotting wood and vegetation.
Size: 35-90 mm (1½-3½")
Locale: South East Asia



Scientific Name: *Paraleprodera Crucifera*
Order: Coleoptera
Diet: Feeds on bamboo.
Size: 30 mm (1¼")
Locale: Thailand



Scientific Name: *Blaberus Giganteus*
Order: Blattodea
Diet: Fruits and vegetables.
Size: 88 mm (3½")
Locale: West Indies, Panama, and northern South America



Scientific Name: *Rhaetulus Sp*
Order: Hemiptera
Diet: Sap, nectar and other plant juices.
Size: 50 mm (2")
Locale: Malaysia



Scientific Name: *Solenostethium Lilligerum*
Order: Hemiptera
Diet: Sap and fruit juice.
Size: 15 mm (0.6")
Locale: Thailand



Scientific Name: *Angamiana Floridula*
Order: Hemiptera
Diet: The larvae eat roots. Adults never eat—they mate and die.
Size: 14 cm (5½") wing tip to wing tip.
Locale: Thailand, South East Asia



Scientific Name: *Dundubia Spiculata*
Order: Hemiptera
Diet: Larvae eat roots. Adults never eat—they mate and die.
Size: Up to 14 cm (5½")
Locale: Thailand, South East Asia



Scientific Name: *Pyrops Candelaria*
Order: Homoptera
Diet: Plants
Size: 50-75 mm (2-3")
Locale: Thailand



Scientific Name: *Aegimia Elongata*
Order: Orthoptera
Diet: Vegetables and leaves.
Size: 50-75 mm (2-3")
Locale: Costa Rica



Scientific Name: *Cryptotympana Aquila*
Order: Hemiptera
Diet: Cicadas feed by piercing the surface of plants and sucking the sap.
Size: 30mm (1¼")
Locale: Thailand



Scientific Name: *Henicopsaltria Eydouxii*
Order: Homoptera
Diet: Plant sap.
Size: 40mm (1½")
Locale: Australia



Scientific Name: *Hymenopus Coronatus*
Order: Mantodea
Diet: Crickets and other small insects.
Size: 3-6 cm (1¼-2½")
Locale: Indonesia, Malaysia and Sumatra rain forests



Scientific Name: *Hierodula Stalii*
Order: Mantodea
Diet: Highly predatory. It eats insects, small frogs, birds and other mantil.
Size: 40-300 mm (1½-12")
Locale: Malaysia



Scientific Name: *Deroplatys Desiccata*
Order: Mantodea
Diet: Smaller insects.
Size: 75-85mm (3-3½")
Local: Malaysia, Borneo, Indonesia and Sumatra



Scientific Name: *Lithobius Forficatus*
Order: Lithobiomorph
Diet: Preys on small insects.
Size: 25-200 mm (1-8")
Locale: United Kingdom



Scientific Name: *Phymateus Saxosus (Female)*
Order: Orthoptera
Diet: Poisonous plants such as milkweed.
Size: 100 mm (4")
Locale: Madagascar



Scientific Name: *Phymateus Saxosus (Male)*
Order: Orthoptera
Diet: Poisonous plants such as milkweed.
Size: 100 mm (4")
Locale: Madagascar



Scientific Name: *Tettigoniidae*
Order: Orthoptera
Diet: Omnivorous: feeds on vegetation, seeds, carrion and occasional prey.
Size: 50-75 mm (2-3")
Locale: Thailand, Malaysia



Scientific Name: *Noctua Orbona*
Order: Lepidoptera
Diet: Nectar.
Size: 50-75 mm (2-3")
Locale: Asia



Scientific Name: *Nephila Pilipes*
Order: Araneae
Diet: Other insects.
Size: 125-180 mm (5-7")
Locale: Thailand



Scientific Name: *Heterometrus spinifer*
Order: Scorpiones
Diet: Insects, centipedes, millipedes, snails, spiders, soifugids, other scorpions and even small reptiles and mice.
Size: 40-127mm (1½-5")
Locale: Asia

