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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 (11/2-31/2") Locale: Rainforests in Costa Rica and the Amazon Basin



Scientific Name: Torynorrhina Flammea **Order:** Coleoptera Diet: Fruit and nectar. Size: 35 mm (11/2") Locale: Thailand



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



Scientific Name: Xvlotrupes Gideon Order: Coleoptra Diet: Decaying wood and leaves. Size: 45-65mm (13/4-21/2") Locale: Malaysia



Scientific Name: Macro **Gyrus Striolatus Order:** Coleoptera Diet: Injured or dead insects in or on the water. Size: 14-18 mm (1/2-3/4") Locale: Eastern Australia



Scientific Name: Cyrtotrachelus Dux Boheman Order: Coleoptera Diet: Bamboo shoots. Size: 18-38 mm (3/4-11/2") Locale: Bangladesh, China, India, Myanmar and Sri Lanka



Scientific Name: Trichogormphus Martabani **Order:** Coleoptera Diet: Nectar. sap. fruit. Size: 45 mm (13/4") Locale: Thailand



Scientific Name: Eupatorus Birmanicus (Female) **Order:** Coleoptera Diet: Rotting fruit and sap.

Size: 6 cm (21/2") Locale: Thailand



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



Scientific Name: Odontolabis Elegans **Order:** Coleoptera Diet: Nectar and sap. Size: 25-85 mm (2-31/4") Locale: Thailand



Scientific Name: Pachyteria Equestris **Order:** Coleoptera **Diet:** Leafy vegetation. Size: 30 mm (11/4") Locale: Indonesia. Malaysia



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

Scientific Name:



Scientific Name: Lucanus Elaphus **Order:** Coleoptera Diet: Rotting wood and tree sap. Size: 80 mm (31/4") Locale: Europe, Asia and Taiwan



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



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



Scientific Name: Angamiana Floridula Order: Hemiptera Diet: The larvae eat roots. Adults never eat—they mate and die. Size: 14 cm (51/2") wing tip to

wing tip.

Locale: Thailand, South East Asia



Scientific Name: Henicopsaltria Eydouxii Order: Homoptera Diet: Plant sap. Size: 40mm (11½") Locale: Australia



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



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

Scientific Name: Dundubia

Spiculata

East Asia

Order: Hemiptera

mate and die.

Diet: Larvae eat roots.

Adults never eat-they

Size: Up to 14 cm (51/2")

Locale: Thailand, South

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



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



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



Scientific Name: Aegimia Elongata Order: Homoptera Diet: Vegetables and leaves. Size: 50-75 mm (2-3")



Scientific Name: Hynenopus Coronatus Order: Mantodea Diet: Crickets and other small insects. Size: 3-6 cm (11/4-21/2") Locale: Indonesia, Malaysia and Sumatra rain forests



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

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



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: Deroplatys Desiccata Order: Mantodea Diet: Smaller insects. Size: 75-85mm (3-3½") Local: Malaysia, Borneo,



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



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

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



Scientific Name: Cryptotympana Aquila Order: Homoptera Diet: Cicadas feed by piercing the surface of plants and sucking the sap. Size: 30mm (1¹/₄")

Locale: Thailand



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



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



