

INSECT LENS



Eyes of the praying mantis “Pseudopupil”

The black dots in eyes are called as ‘pseudo-pupils’ and are an optical artifact of compound eyes’ structure. Compound eyes of the praying mantis is composed of many individual optical “modules” called ommatidia for gathering and sensing light all bundled together like a bunch. Each one produces a small piece of a larger image mosaic.

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White-barred Emperor, Charaxes brutus (Nymphalidae: Lepidoptera)

The White-barred Charaxes is found in the higher rainfall regions of the forest in Southern Africa..

There are multiple generations per year so this species can be found in flight year-round.

Author: Dr Sevgan Subramanian

Location: Temple Court Apartment, Parklands, Nairobi, Kenya (March 2023)

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Coccinellid grubs feeding on scales

Author: Dr Sevgan Subramanian

Location: Karura Forest, Nairobi, Kenya (January 2023)

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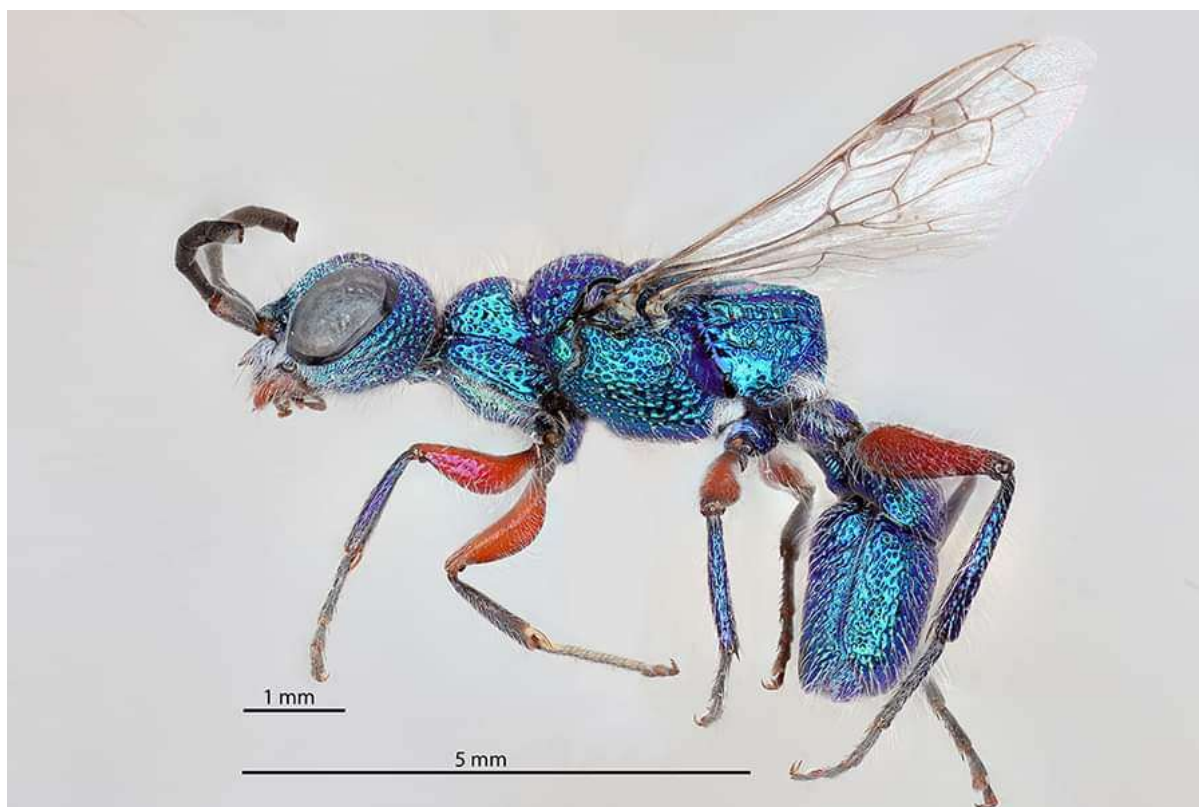


Any lead to identification?

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Emerald cockroach wasp, Ampulex (Ampulicidae)

It is known for its unusual reproductive behaviour, which involves stinging a cockroach and using it as a host for its larvae. It thus belongs to the entomophagous parasites.

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Cactus flies or banana stalk flies, Teleostylinus lineolatus (Neriidae: Diptera)

Neriidae is a relatively small family of true flies with long, stilt-like legs. Most species are found in the tropics. Many species are strikingly sexually dimorphic, with males having much longer legs, heads and/or antennae than females. Larvae have the ability to leap during the stage just before pupation when they migrate from the larval feeding substrate to the pupation site.

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Oxybelus sp. (Carbronidae: Hymenoptera)

These are solitary predatory wasps that nest in the ground. As with other Carbronids, they also uniquely predate flies (Diptera) and provision their nest with the flies for their young ones.

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***Philanthus* sp. (Crabronidae: Hymenoptera)**

The Philanthus genus has over 135 known species. They are solitary predatory wasps that nest in the ground. Philanthus are commonly referred to as bee wolves based on their preferential predatory behaviour on bees. The European bee wolf, Philanthus triangulum, is the most widespread Philanthus wasp species, which specializes on predating honeybees. It is a minor pest of bee farming. Other species of Philanthus preferentially predates on other bees such as Bumble bee, other hymenopterans and at times other crabronids. This image depicts the ground nesting behaviour of the female Philanthus. Males are known to have territorial behaviour marking their zones against competing males by applying pheromones to various plant surfaces.

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Hawk moth, *Sphinx* sp. (*Sphingidae*: *Lepidoptera*)

Hawk moths have the world's longest tongues than any other moth or butterfly (some up to 14 inches long). Although caterpillars may feed on plants, the adults have an important role as pollinators of many plant species and are the most significant pollinator of papaya.

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Slims, Aciagrion occidentale (Coenagrionidae: Odonata)

They are widely distributed across Central and South India, Sri Lanka, Thailand, Cambodia and Vietnam. Suitable habitat is shrub dominated wetlands although it can also be found in bogs, marshes, swamps, peat lands, small streams and permanent freshwater lakes.

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The Orange Tortricid Moth, Loboschiza koenigiana (Tortricidae: Lepidoptera)

These are occasional feeders of Neem, Melia azedarach, Jasmine and Hibiscus. A beauty in its design.

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Common Giant-Reed Bee, Macrogalea candida (Apidae: Hymenoptera)

Macrogalea bees are a group of native bee species that do not produce honey but are likely pollinators of crops and wild plants. Females have a sting, but they are not aggressive and will only sting if handled. These hairy, medium sized, long-tongued bees are only found in sub-Saharan Africa. *Macrogalea* bees nest in soft, dead plant stems and live independently (i.e. they are solitary).

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Syrphid, most likely *Betasyrphus* sp. (Syrphidae: Diptera) foraging on *Ocimum*

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Honey bee, Apis mellifera (Apidae: Hymenoptera) foraging on Thorn Trees, Vachellia.

Thorn trees, Vachellia are key drought tolerant crops in the arid zones in Africa. Honey from bee's foraging on these drought tolerant tree crops are highly valued and demanded in the market. Conservation of Vachellia trees linked with bee farming and honey production can be a great income generation opportunity for communities in the arid zones of Africa and beyond. Let us conserve bees and the ecosystem services that they provide.

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Ceroplastes sp.

Observed on mango leaves at ICIPE, Nairobi, Kenya. Any leads to its ID is greatly appreciated.

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Coridius janus (Dinidoridae)

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Latoia sp. (Limacodidae: Lepidoptera) feeding on Eucalyptus

They are often called slug moths because their caterpillars bear a distinct resemblance to slugs. The larvae are often liberally covered in protective stinging hairs, and are mostly tropical, but occur worldwide, with about 1800 described species and probably many more as yet undescribed species.

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Syrphid fly, mostly *Paragus capricorni* (Syrphidae: Diptera)
(ID courtesy @Georg Gorgen, International Institute of Tropical Agriculture)

*The adults feed on pollen and nectar from flowers as it is usual for syrphines, but larvae of *Paragus* feed mostly on soft-bodied Hemiptera and some other insects*

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Any leads to its ID is greatly appreciated.

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