

INSECT LENS



The banana skipper, Erionota thrax (Hesperiidae: Lepidoptera)

Banana Skipper is a serious defoliator of banana plantations throughout the South-East Asia and Papua New Guinea. The occurrence of this pest was reported from Madurai, Theni, Coimbatore and Erode districts of Tamil Nadu and Chamarajanagar district of Karnataka, India in 2013.

Author: Suresh R. Jambagi, Ph.D. Scholar, UAS, GKVK Bangalore, Karnataka, India.

Location: Main Agricultural Research Station, UAS Dharwad, Karnataka, India

Email: jambagisuru@gmail.com



Leaf-rolling cricket, Hyalogryllacris sp. (Gryllacrididae: Orthoptera)

These are non-jumping, wingless insects occurring worldwide, commonly known as raspy crickets. They weave or roll the leaves with the help of silk produced from mouthparts. These are very rare to spot.

Author: Suresh R. Jambagi, Ph.D Scholar, UAS, GKVK Bangalore

Location: UAS, GKVK Bangalore, Karnataka, India

Email: jambagisuru@gmail.com



Tachinid fly, Prosenia siberite (Tachinidae: Diptera)

Adults are harmless nectar feeders on flowers of various plants viz., Clematis gouriana, Gnaphalium sp., Tecoma castanifolia, Seseli libanotis, Patrinia scabiosifolia, etc. Larva parasitizes the larva of various scarab beetles viz., Popillia japonica, Adoretus, Anomala, Leucopholis species. These tachinid flies are univoltine species.

Author: Suresh R. Jambagi, Ph.D. Scholar, UAS, GKVK Bangalore, India

Location: Hirepadasalagi, Bagalkot, Karnataka, India

Email: jambagisuru@gmail.com



Root/white grubs, *Holotrichia* sp. (Scarabaeidae: Coleoptera)

Holotrichia sp. is an important pest in groundnut. Adults become active with the arrival of the monsoon showers. If the monsoon is late, the beetle's emergence is similarly delayed. After emergence the beetles congregate on neem (*Azadirachta indica*), *Butea monosperma* and babul trees (*Acacia arabica*).

Author: Suresh R. Jambagi, Ph.D. Scholar, UAS, GKVK Bengaluru, Karnataka, India

Location: Hirepadasalagi, Bagalkot, Karnataka, India

Email: jambagisuru@gmail.com



Alate green peach aphid, Myzus persicae (Aphididae: Hemiptera)

Green peach aphids have a black head and thorax and a yellow-green abdomen. Whenever, food quality declines, winged females are developed and they leave in search of new host. In autumn, both male and female winged aphids develop and return to woody plants to mate and lay eggs.

Author: Manjunath Badiger, M. Sc (Agril. Entomology) UAS, Dharwad Karnataka, India.

Location: Kempwad, Belagavi, Karnataka, India.

Email: mrbadiger1995@gmail.com



Paper Wasp, Ropalidia marginata (Vespidae: Hymenoptera)

Ropalidia marginata scrape cellulose fibers from plants and masticate them into paper pulp to build open nests (gymnodomous). It has an indeterminate (several colony cycles repeating in the same nest), perennial (active throughout the year) and aseasonal (nests can be initiated and abandoned any time of the year) nesting cycle.

Author: Manjunath Badiger, M. Sc (Agril. Entomology), UAS, Dharwad, Karnataka, India..

Location: UAS, Dharwad, Karnataka, India.

Email: mrbadiger1995@gmail.com



***Zygogramma bicolorata* (Chrysomelidae: Coleoptera)**

*In India, the biocontrol program of parthenium was initiated in 1984 at Bangalore by the introduction of *Zygogramma bicolorata* from Mexico. After a successful introduction, *Zygogramma bicolorata* became colonized within 3 years and caused considerable damage to the parthenium plants and lowering its density in the released areas.*

Author: Manjunath Badiger, M. Sc (Agril. Entomology), UAS, Dharwad, Karnataka, India.

Location: Chinchali, Belagavi, Karnataka, India.

Email: mrbadiger1995@gmail.com



Derbid Planthopper, Proutista moesta (Derbidae: Hemiptera)

Proutista moesta is an economically important sap-sucking insect of palms and is implicated as a common vector of root wilt disease of coconut, yellow leaf disease of areca nut and spear rot disease of oil palm in India. Nymphs develop saprophytically by feeding on substrates undergoing fungal decomposition.

Author: Manjunath Badiger, M. Sc (Agril. Entomology,) UAS, Dharwad, Karnataka, India.

Location: UAS, Dharwad, Karnataka, India.

Email: mrbadiger1995@gmail.com



Western Golden Dartlet, Ischnura rubilio (Coenagrionidae: Odonata)

Western Golden Dartlet is a small apple green damselfly with black thoracic stripes, black-capped olive-green eyes and blue tipped yellow tail. These are found in Indian subcontinent and Iran. These breeds in weedy ponds, lakes and marshes.

Author: Manjunath Badiger, M. Sc (Agril. Entomology), UAS, Dharwad, Karnataka, India.

Location: Kempwad, Belagavi, Karnataka, India.

Email: mrbadiger1995@gmail.com



Sugarcane leafhopper, *Pyrilla perpusilla* (Lophopidae: Hemiptera)

Pyrilla perpusilla is a threat to Indian sugar industry and causing 31.6% reduction in cane yield and 2-3% reduction in sugar recovery if not properly managed. Gregarious pest found under the surface of the leaves. They suck sap and cause yellowing and eventually drying of leaves.

Author: Manjunath Badiger, M. Sc (Agril. Entomology), UAS, Dharwad, Karnataka, India.

Location: Kempwad, Belagavi, Karnataka, India.

Email: mrbadiger1995@gmail.com



Spot eyed hover fly, Eristalinus megacephalus (Syrphidae: Diptera)

Hoverflies are known to provide ecosystem services such as pollination by adults and immatures as predator. Eristalinus megacephalus is a good pollinator and exhibit 'Batesian mimicry' to look like hymenopteran bees and scare away predators. Its flight period is from May to October and June to July.

Author: Manjunath Badiger, M. Sc (Agril. Entomology), UAS, Dharwad, Karnataka, India.

Location: Sankonatti, Belagavi, Karnataka, India.

Email: mrbadiger1995@gmail.com



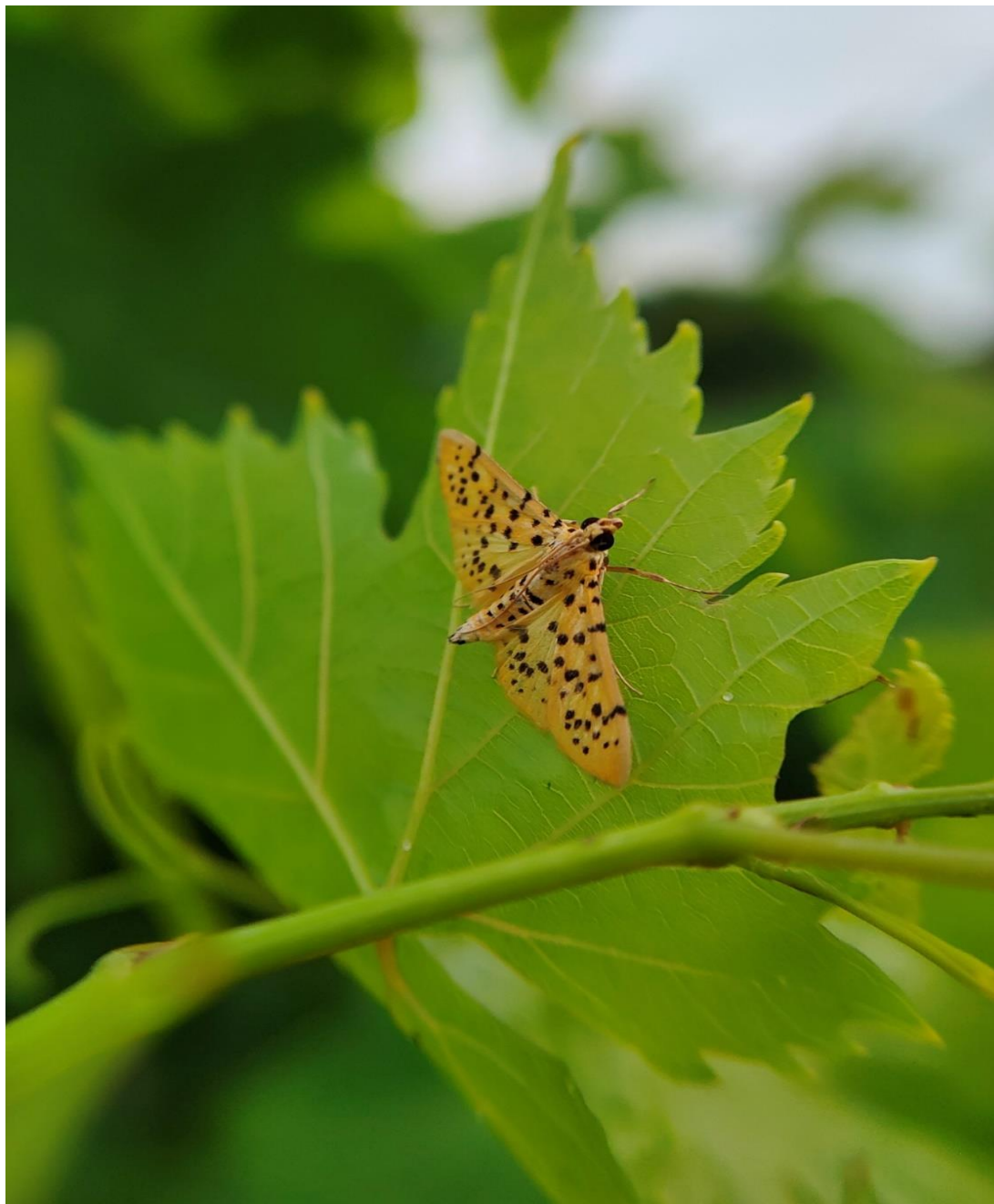
Meadow Froghopper, Philaenus spumarius (Aphrophoridae: Hemiptera)

Froghoppers are known for their 'Cuckoo Spit', the foamy mass found on plants/grasses. These masses are nest for their developing nymphs providing protection and moisture during this stage of development, which can last for up to fifty days.

Author: Manjunath Badiger, M. Sc (Agril. Entomology), UAS, Dharwad, Karnataka, India.

Location: UAS, Dharwad, Karnataka, India.

Email: mrbadiger1995@gmail.com



Fruit & Shoot borer, Conogethes punctiferalis (Crambidae: Lepidoptera)

Conogethes punctiferalis is a polyphagous serious pest of castor, guava, pomegranate, pear, turmeric, ginger, mango. The adult males emit powerful ultrasonic sounds (around 82KHz) in the courtship process to induce female to adopt the mating posture.

Author: Manjunath Badiger, M. Sc (Agril. Entomology), UAS, Dharwad, Karnataka, India.

Location: Sankonatti, Belagavi, Karnataka, India.

Email: mrbadiger1995@gmail.com



Citrus butterfly larvae, Papilio demoleus (Papilionidae: Lepidoptera)

A young larva disguises itself as a bird-dropping on a lime leaf. The larva later becomes green blending itself with the surrounding green curry leaves. When disturbed, the larva extrude a red forked process 'osmeterium' to deter predators.

Author: Dileep Kumar N. T, Ph. D scholar, Dept of Entomology UAS, Dharwad, Karnataka, India.

Location: College of Agriculture, Vijayapura, Karnataka, India..

Email: dileepyadhu1996@gmail.com



Pupa of Pod fly, Melanagromyza obtuse (Agromyzidae: Diptera)

Pod fly is also called as ‘silent pod killer.’ Because adult inserts eggs in immature pods and the infested pods do not show external evidence of damage until the fully-grown larvae chew exit holes in the pod walls at the time of maturity. Also, the adult is very minute and complicated to monitor in the field.

Location: Insect Biodiversity Park, College of Agriculture, Vijayapura, Karnataka, India.

Author: Dileep Kumar N. T, Ph. D scholar Dept of Entomology UAS, Dharwad, Karnataka, India.

Email: dileepyadhu1996@gmail.com



Tawny Coster, Acraea terpsicore (Nymphalidae: Lepidoptera)

Acraea terpsicore can be seen in abundance wherever its larval food plant (*Passiflora* species) is found. It is one of the boldest butterflies, protected as it is from predators by a nauseous chemical. When attacked it plays dead and exudes a noxious yellowish fluid from glands in the joints of the legs.

Location: Agricultural College and Research Institute, Killikulam, Tutikorin, Tamil Nadu, India.

Author: Beulah Bhakiya Sherlin R, Department of Entomology, Agricultural College and Research Institute, Killikulam, Tuticorin, Tamil Nadu, India

Email: beulahwhite@gmail.com



Stingless bee, Trigona sp. (Apidae: Hymenoptera) on okra

Stingless bees are small and highly social insects. They are closely related to common honeybees, carpenter bees, orchid bees and bumblebees. Naturally they nest in hollow trunks, tree branches, and rock crevices, if available, they'll go for man-made cavities. Like honeybees, even they produce honey and have stings, but they are too small and weak to penetrate human skin.

Author: S. Devanesan, Thiruvananthapuram, 695018, Kerala

Location: Trivandrum, Kerala, India

Email: devanesanstephen@gmail.com



Eurybrachys tomentosa (Eurybrachidae: Hemiptera)

Eurybrachys tomentosa occurs in parts of Asia, Australia and Africa. They are remarkable for the sophistication of their automimicry. A common plant hopper attacks on *Sandal* and *Calotropis gigantea* in South India. This species is also responsible for stag-headedness prevalent in sandal forests. They are remarkable for the sophistication of their automimicry.

Author: D. N. Nagaraj

Location: Bengaluru, Karnataka, India

Email: nasoteya@yahoo.co.in



Japanese Uzi Fly, Crossocosmia sericariae (Tachinidae: Diptera)

Tachinid flies are effective parasitoids of caterpillars. They are protelean parasitoids. Larvae are endoparasitoids while, adults are free-living on nectar.

Author: D. N. Nagaraj

Location: Bengaluru, Karnataka, India

Email: nasoteya@yahoo.co.in



Blackjack fruit fly, *Dioxyna sororcula* (Tephritidae: Diptera)

The smallest fruit flies of around 2.5 mm in length attacks a wide range of composite plants including weeds.

Author: S. Subramanian

Location: ICIPE - International Centre of Insect Physiology and Ecology, Kasarani, Nairobi, Kenya.

Email: ssubramania@icipe.org



Tiny eggs of Zigzag ladybird beetle, Cheilomenes sexmaculata (Coccinellidae: Coleoptera)

The eggs of C. sexmaculata were bright yellowish, cigar shaped with smooth chorion. Egg mass looks similar to banana bunch under microscope.

Author: Mangali Ashwini, Ph.D (Agril. Entomology), Department of Entomology, Navsari Agricultural University, Navsari, Gujarat, India.

Location: Navsari Agricultural University, Navsari, Gujarat, India.

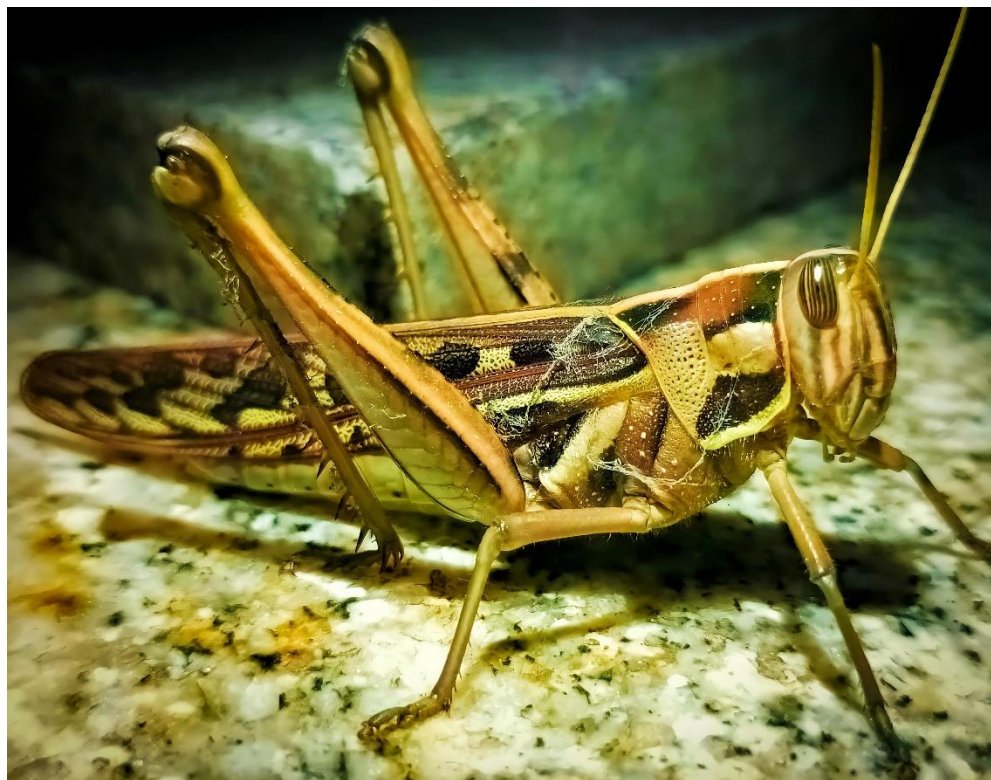
Email: m.ashwini2511@gmail.com



Female wasp with ovipositor

Author : Rana Nargees Sheikh, Student, Francis Xavier girls high school Pulikeshinagar, Bengaluru, Karnatak, India

Location: Pulikeshinagar, Bengaluru, Karnatak, India.



Short-horned grasshopper, (Acrididae: Orthoptera)

They are typically ground dwelling insects with powerful hind legs which allow them to escape from threats by leaping vigorously. They are herbivorous and include some of the most destructive agricultural pests known. The plague, or migratory, species are called locusts.

Author: Hemavathi K J, 3rd BSc student, Maharani's Science Ccollege for Women
Bengaluru, Karnataka, India

Location: Bengaluru, Karnataka, India

Email: hemabiddu143@gmail.com



Ladybird beetle, Illeis cincta (Coccinellidae: Coleoptera) eating its exuviae in Cotton

Author: Kaneria Prashant B. Ph. D scholar & Senior Research Fellow, Junagadh Agricultural University, Gujarat, India

Location: Cotton Research Station, Junagadh Agricultural University, Gujarat, India

Email: prashantkaneriya959@gmail.com



A Flesh Fly (Diptera: Sarcophagidae)

Species of medical importance in many parts of the world. It is a myiasis-producing agent as well as forensics as it is known to colonize decomposing human remains.

Author: Rushikesh Rajendra Sankpal, Department of Environmental Sciences, Savitribai Phule Pune University, Pune

Location: Warananagar, Kolhapur, Maharashtra, India

Email: prof.sankpal@gmail.com



Maize Fall armyworm *Spodoptera frugiperda* (Noctuidae: Lepidoptera)

Is a serious pest of maize that has invaded and subsequently spread through Sub-Saharan Africa since 2016 causing enormous crop losses.

Author: Chaudhary Lalabhai S. M.Sc (Agri.) Dept of Entomology

Location: Navsari Agricultural University Campus, Navsari (Gujarat)

Email: lalabhai261999@gmail.com



Brown planthopper (BPH), *Nilaparvata lugens* (Hemiptera: Delphacidae)

Macropterous gravid female inserts its ovipositor into the leaf sheath to lay eggs

Author: Kondala Rao Yelisetti, (Retired Chief Technical Officer, Indian Institute of Rice Research, Rajendranagar, Hyderabad, India

Location: Rajendranagar, Hyderabad -500030, India

Email: ykondalarao@gmail.com