

Beautiful bugs and beetles by Sanjay Sondhi

Published in TerraGreen Oct 2010

In my new-found enthusiasm for moth watching, I often leave the light bulb on in the balcony of my house. While moths do visit, many other insects also drop by to say hello. Last week, I observed a beautiful green bug near the bulb, as well as an assortment of beetles. This set me thinking—do people know the difference between bugs and beetles, or are they just creepy-crawly insects on the wall?



Both bugs and beetles are insects. Did you know that there are more than a million known species of insects worldwide, with possibly at least as many species still to be described? Insects account for more than 50% of earth's known living organisms. Truly amazing!

While there are many kinds of insects, bugs and beetles are the most abundant. So how does one tell bugs and beetles apart? The easiest way is to look closely at their wings (you did know that most insects have wings and can fly, right?). Beetles have hardened forewings that cover the hind wings. These forewings are not used for flight, but only for protecting the hind wings, which are used in flight. The forewings of beetles do not overlap, and they meet in a straight line down its back (*see Tortoise Beetle*).



Bugs are of two kinds. True bugs are those that look a lot like beetles, but their wings overlap (see *Cotton Stainer Bug*).



Then there are other bugs which cannot be mistaken for beetles, as their wings are membranous and held in a tent-like shape over



their body (see *Butterfly Bug*).

There are other differences between bugs and beetles; the most significant being their mouthparts. All bugs have a beak-like mouthpart, which is used to pierce and suck soft plant parts for sap (although there are some bugs that are predacious and eat other insects). Beetles, on the other hand, have mouthparts that are suited for biting on leaves,

their primary food.

Bugs and beetles come in all shapes, sizes, and colours—some are nondescript, while others are stunningly beautiful. The Tortoise Beetle, called so because of its tortoise-like shell, is common in both urban and rural habitats. Like most other beetles, it feeds on leaves. Intriguingly, the plant species that the young tortoise beetles feed on are different from that of the adult beetle.

I spotted the exquisite Green Butterfly Bug on a banana plant. And each time I attempted to photograph it, it slowly moved to the other side of the plant's stem, thereby hiding from me. Fifteen minutes of chasing ended when the bug, tired of my antics, hopped suddenly to another plant and disappeared. This bug is also called a 'planthopper' because of this very habit! Planthoppers feed on plant sap and excrete a sweet liquid, called honeydew, which attracts ants. Ants feed on this honeydew provided by the planthoppers, and, in exchange, protect the bugs. The young ones of planthoppers are whitish, with many thread-like feathery tails. Often, a mass of young planthoppers huddle together on a branch, making it entirely white.

The Cotton Stainer Bugs are pests that usually feed on cotton. When cotton is harvested, the insect often gets crushed along with the cotton, leaving a red stain that cannot be removed. This gives them their unique common name.

Bugs and beetles play an important role in the web of life. While some beetles and bugs are pests, many beetles pollinate flowers and bugs provide honeydew to ants and wasps. Most bugs and beetles are food for other creatures—other insects, birds, reptiles, and

amphibians. Without them, the wheel of life on earth would stop to turn. So let us do our bit to ensure that they (and their habitats) are conserved!

Sanjay Sondhi is a Dehradun based naturalist.

© Sanjay Sondhi, TITLI TRUST

Urban Nature Watch appears in TerraGreen, TERI's (www.terin.org) monthly magazine.