

**Doon Watch Nature Series for Dehradun Live Hindustan Times
by Sanjay Sondhi**

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The Covert Cowbugs

Yesterday, I stood by an Amaltas tree in our housing colony, I watched as small black ants worked their way busily along the tree's branches. Every now and then, the ants would stop, and seemed to feed on something. I spent the next ten minutes observing the ants, ignoring the queer looks from passerby's who wondered why I was peering up a tree!

My observations revealed that the ants were surrounded by numerous tiny insects. These insects looked like extra-terrestrial creatures! No more than 3-4 mm in size, the tiny winged insects had a black head on which grew two large black horns, making it look like a miniature cow, albeit from outer space! A black stick-like protrusion extended along its back. Large yellow eyes and transparent wings completed the dress code of this weird looking insect.



The insects were cowbugs which are bugs belonging to the Membracidae family. No prizes for guessing why the cowbugs are named so! Also called treehoppers, the tiny bugs leap a long way if disturbed. Although well camouflaged, when I got too close to the cowbugs, adroitly, they moved to the other side of the branch, hiding from me.

The cowbugs bring to fore an interesting behaviour exhibited by many creatures on earth-symbiosis. Creatures sharing a symbiotic relationship, live physically close to each other, providing mutual benefit to each other. The cowbugs share a symbiotic relationship with ants!

Cowbugs are sapsuckers. Their mouth parts are short and tube-like, and the bug digs into soft stems to feed on the sap of plants. From the sap of plants, cowbugs secrete honeydew (which is a sweet, sticky substance that many insects secrete), which ants cherish. Hence, these tiny bugs, secrete honeydew when ants stroke them with their antennae. In turn, the presence of ants near the cowbugs provides these delicate creatures protection from predators. I could not help but smile, as an ant stroked a cowbug, attempting to milk it for honeydew. Being much larger than the cowbug, the ant only managed to give the bug a big shove, and got a nasty look from its purported benefactor!

There are numerous examples of creatures in symbiotic relationships on earth. Often, we forget, that in fact, all of life on earth is interlinked. The Web of Life, as it is so often called, means that humans depend on plants, which depend on animals, which in turn, also depend on plants and so on. Break this chain, and you never know how this will impact life on earth, man included!

Sanjay Sondhi is a Dehradun based naturalist. Feedback on this column is welcome at sanjay.sondhi1@gmail.com

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Making a difference: Often, we end up buying decorations and ornaments made from plants or animals. Avoid doing so-these goods do not provide us with any benefit, but end up breaking the Web of Life.