

GOOD EARTH

## There was a fig tree here once

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The fig tree is a uniquely interesting species and it also plays a special ecological role.

Photo: Ashish Kothari



**The fig: Symbiotic relationship.**

I live in Kothrud, a residential area in Pune. I moved into a small flat in early 2005. Over the last two years, I have battled congested roads, heavy traffic, and a dysfunctional public transport system to office and back.

But home was comforting. The kitchen and hall have windows that overlook a rain tree, a jacaranda, a fig and a eucalyptus. Both have afforded me great sightings of birds, especially early in the mornings: drongos, spotted munias, magpie robins, tailorbirds, bulbuls, shikras to name just a few. I remember two occasions fondly: one morning when five golden orioles got my attention as they flitted in the midst of the violet flowers of the jacaranda tree that was in bloom and another when I counted an unbelievable nine grey hornbills on the eucalyptus tree.

### Tragedy

Imagine my shock then, when one evening on my return home, I found our road strewn with wood pieces. The fig tree had been mercilessly lopped! I was told that the ripe fruits of the fig tree were creating a mess on the ground! I was incensed and sad.

Fig trees (like the Indian banyan, Peepul, Common fig) are uniquely interesting species, and play special ecological roles. Figs are key stone species, because other living species depend on it. In a forest, you will find many species of figs that fruit at different times of the year.

This ensures that some food is available at different points in time. If a keystone species is affected, then many others are too. The word “keystone” is borrowed from architecture, where the keystone of an arch is the main stone at the top, without which the arch would collapse.

Fig trees also have symbiotic relationships with wasps. And these relationships unfurl a uniquely interesting story.

Each fig species has a particular kind of wasp that helps in pollination and seed production. Without the wasp, the fig tree would grow but not produce any seeds. The wasp, in turn needs the fig tree for its own survival! The small, green fruit like structures that we see on the figs, are actually not fruits, but little receptacles or cases for the flowers and seeds of the fig. Female wasps enter these receptacles through a small opening at the base, to lay their eggs within this safe place. While doing so, they also deposit pollen that they have carried from the fig that was their first home. The eggs hatch as the fig develops, and the larvae feed on the surroundings of their new home. Later, adult male wasps mate with females within the fig receptacle. The males then dig a tunnel out of the fig, which the females use to fly out, carrying with them some pollen from their home to another fig tree. The males die soon after, as many of them do not have wings.

As I stood under the remains of the fig tree, a lump filled my throat. We had destroyed not just one tree that day, but a whole set of complex inter-relationships in nature.

### **What Can I Do?**

Make attempts to find out what rules govern the cutting, pruning, and transplanting of trees. You may be surprised to learn that in many of our cities one needs permission to cut or prune a tree even in one’s own garden or compound! Find out if there is a Tree Act that lays down rules for your city. If you see a tree being cut find out if the persons doing it have permission. If they do not, complain to the relevant authorities about the illegal felling. You could also support groups that are involved in tree plantation activities in your area.

*In collaboration with Kalpavirksh Environment Action Group*