Basil

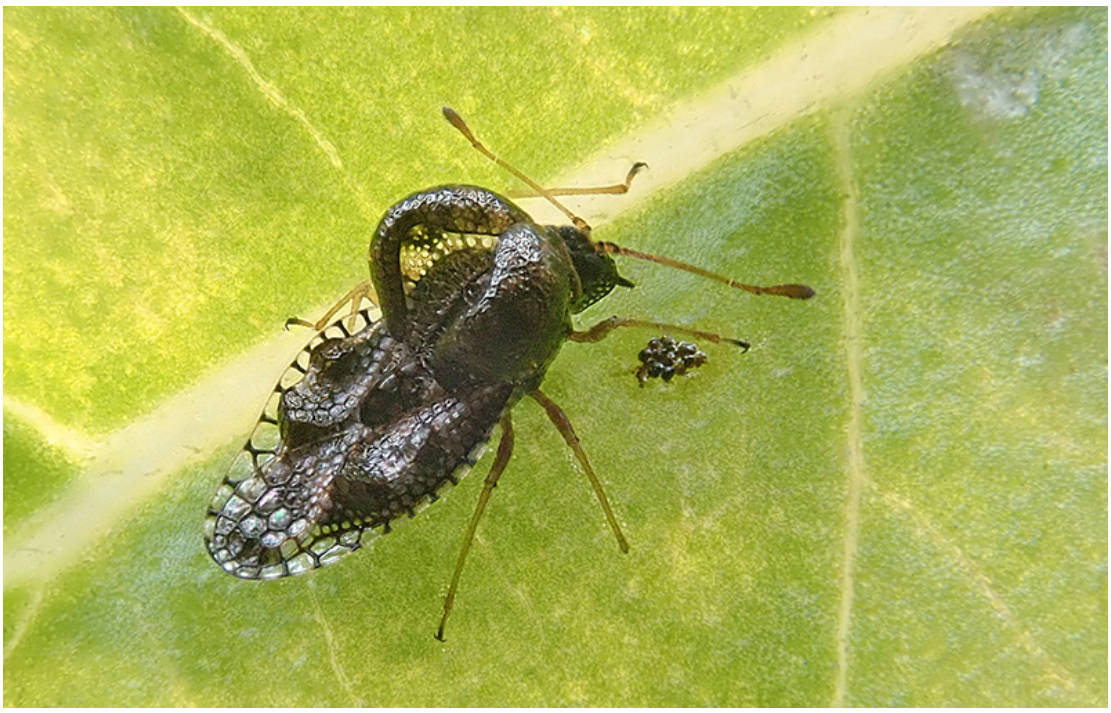
Shannon and Ian Jacobs

Holy basil: *Ocimum tenuiflorum* in Latin and กระเพรา in Thai, grows on our lawn. Holy basil is a small perennial bush that is a member of the mint family. The spicy leaves taste a bit like cloves. We replace old plants sometimes, by leaving new self-sewn seedlings to grow and mowing the old plants.

The leaves are cooked with minced pork in a popular Thai dish, served with rice and often a fried egg. 'Krapow moo' as it's called in Thai is something everyone here can cook.

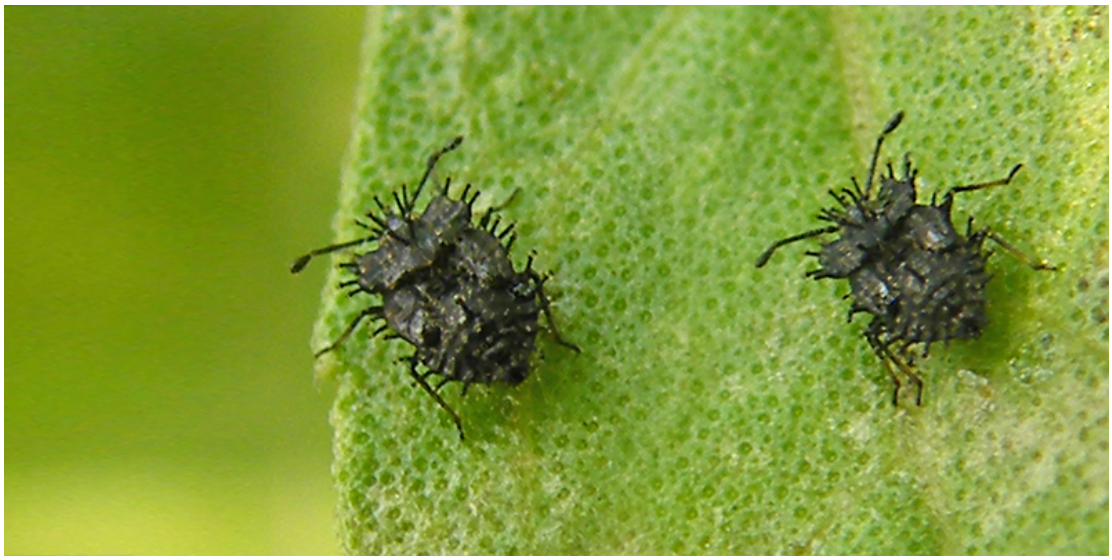
When we first planted basil on the lawn five years ago it was attacked by tiny sap-sucking bugs. There were hundreds of them and no other insects that we could see. We didn't spray or look after the plants, we just left them, and now we find many different species of small insects when we shake a bush onto a white tray. The original bugs are still there but in lower numbers. I wonder what happened to reduce the sap-sucker population?

Cochlochila bullita: the Basil lace bug



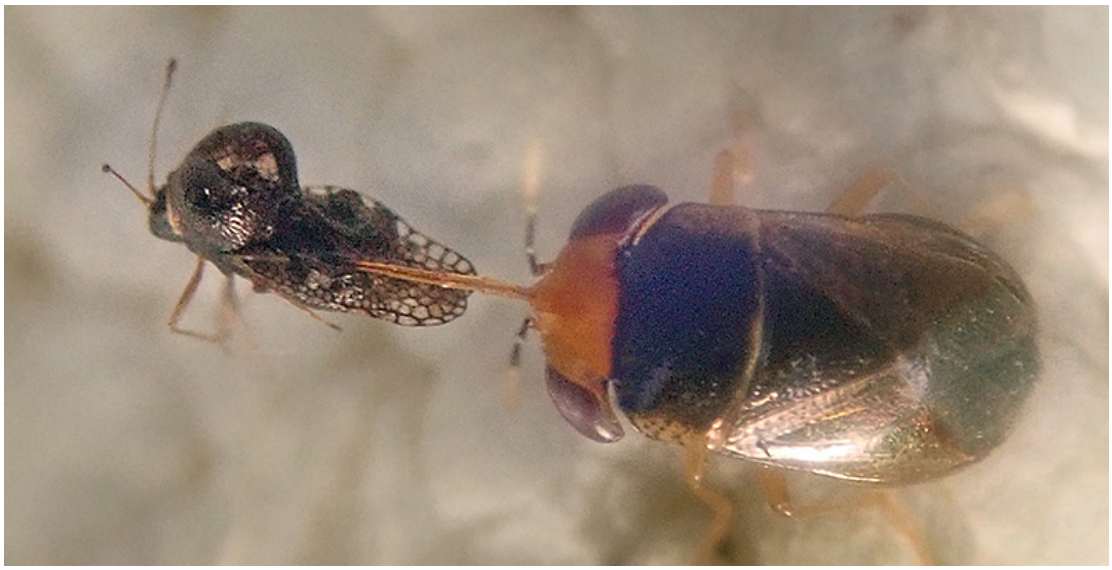
The small bug is just 2.5 mm long. It's the adult lace bug that we find only on Basil, nowhere else. We read that they do have other hosts including other members of the Basil family and the tropical herb *Orthosiphon stamineus*. We plan to plant that one here and see what happens.

Juvenile Basil lace bugs hatch from eggs and are black and spiky. They suck sap and stay in a group on a single leaf.



Biological population control

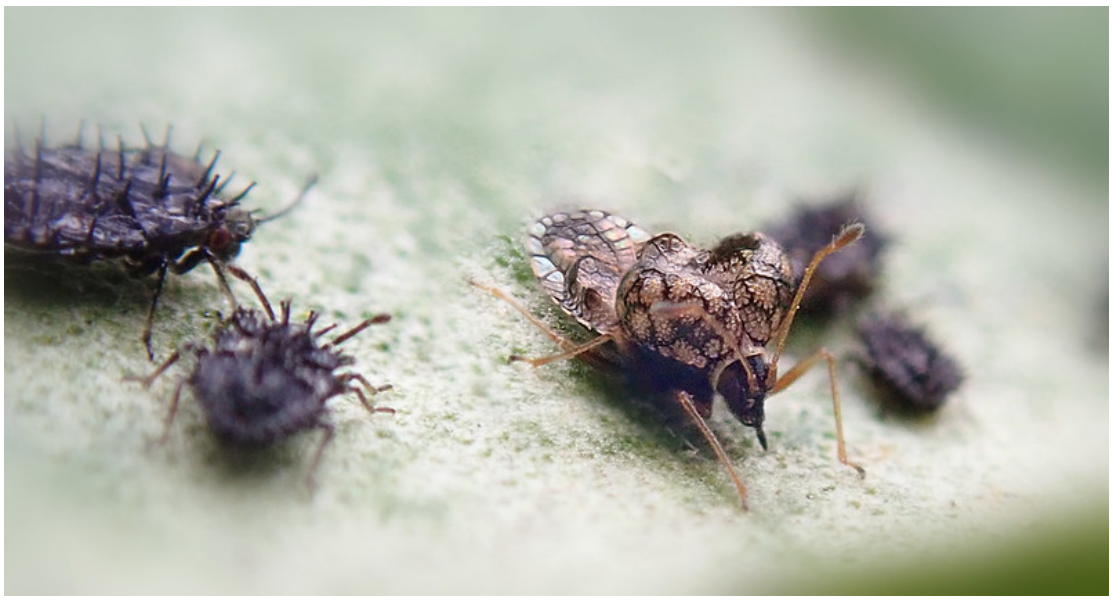
Lace bugs make a steady source of food for a carnivore. The most obvious predator to appear and become established is a big-eyed bug, a *Geocoris* species in the *Geocoridae*.



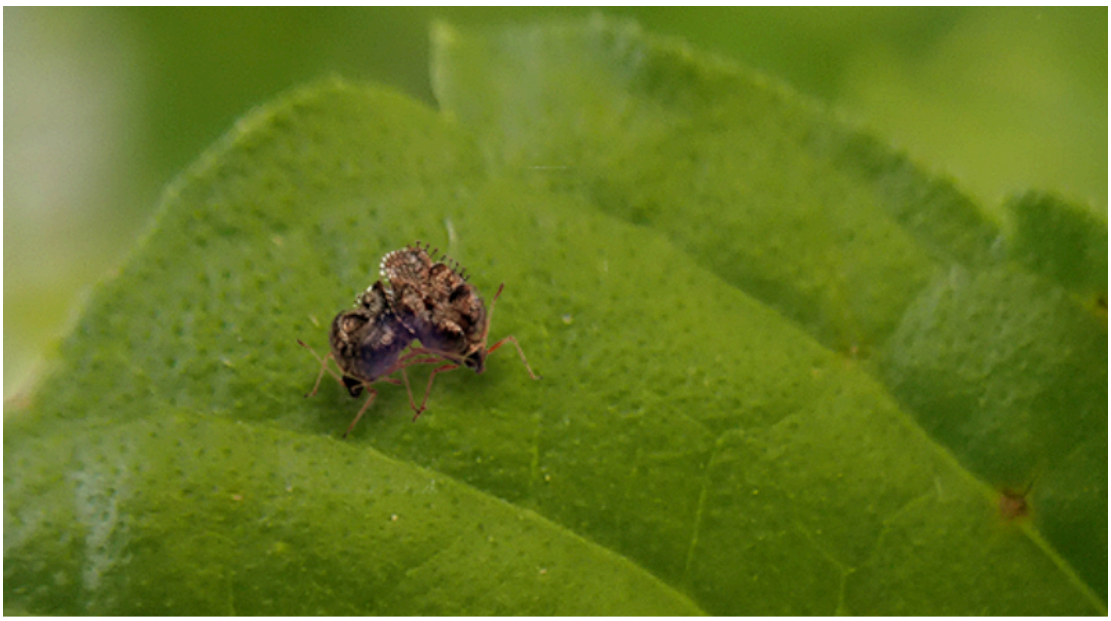
We now find big-eyed bugs mostly on the basil, but they do eat other things, tiny beetles on the basil, and this ant on a nearby eggplant leaf.

There may be other controls, like parasitic wasps that lays eggs in the eggs of the lace bug, but that is another story.

The Basil lace bug: adult and juveniles



There are many species of Lace bug, all small, all with preferred hosts and all good elaborate subjects for a portrait. We find other ones on different plants and will write about them shortly.



A mating pair of Basil lace bugs on just five sq. cm of leaf.

The two sexes look identical (to us) and are very much smaller than they appear to be in macro images.

Pollinators

Basil plants produce a chemical called *methyl eugenol* that attracts males of some fruit fly species. *Thanks to Andrew Jessup on flickr for this information that matches what we observe occasionally*.

This image shows six male fruit flies (*Bactrocera dorsalis*) on a basil bush at the house. They have been attracted to the basil flowers and are acting as pollinators.