

# BUG CORNER

With Dr. Briar Taylor-Smith

## PART 1

### Leaf beetles (*Chrysomelidae*)



Photo by Briar Taylor-Smith

Throughout many forgotten gullies, gardens, parks, and forests around New Zealand, a nasty weed wanders, winding over seedlings and smothering shrubs. Wandering willie (*Tradescantia fluminensis*) comes from South America. Although it's beautiful to look at, makes a lovely bed to lie in, and is a great spot for playing hide and seek, it grows to form dense mats that stop forests from regenerating, and causes allergic reactions in dogs (including Dobby above).

### Why does an animal or plant become a pest?

One reason can be that when introduced somewhere new, they can escape from natural enemies that would ordinarily control their numbers. Fortunately for us, we can harness the power of these natural enemies. We call this pest control method "biocontrol".



### Chrysomelidae in New Zealand

There are thousands of species of leaf beetle. They are all very small (3–15mm), and as you can guess, they all like to eat leaves.

NZ has lots of introduced leaf beetles that have either arrived by mistake (like the eucalyptus tortoise beetle that destroys eucalyptus trees), or that have been introduced for biocontrol (like the ragwort flea beetle introduced to control ragwort, and the green thistle beetle introduced to control Californian thistles).

We also have many native leaf beetles, although we don't know much about most of them. One group, our bronze beetle (*Eucolaspis*), gets a very bad rap because they've developed a taste for apples and other fruit crops.

For leaf beetle sightings in your area check out [naturewatch.org.nz/taxa/51146-Chrysomelidae](http://naturewatch.org.nz/taxa/51146-Chrysomelidae).

If you found it, post on nature watch: [naturewatch.org.nz/projects/kiwi-conservation-club](http://naturewatch.org.nz/projects/kiwi-conservation-club).

### FOUND-IT-CHECKLIST



Eucalyptus tortoise beetle.  
Photo: Robbie Graham



Ragwort flea beetle.  
Photo: Pete McGregor



Green thistle beetle.  
Photo: Andrew Blayney



Bronze beetle.  
Photo: jacqui-nz

### WILLIE'S BEETLES

In the case of wandering willie, scientists went to South America and returned home with three leaf beetle species that like munching on this plant in its homeland:



Photo: Landcare Research NZ [CC4.0]

The tradescantia leaf beetle, a.k.a. "Shiny" (*Neolema ogloblini*), likes to munch on the leaves.



Photo: Andrew Blayney

The tradescantia stem beetle, a.k.a. "Knobbly" (*Lema basicostata*), likes to munch on the stems.



Photo: Andrew Blayney

The tradescantia tip beetle, a.k.a. "Stripy" (*Neolema abbreviata*), likes to munch on the growing tips.

Over the past few years, they've been trying out Shiny, Knobbly, and Stripy as biocontrol and things are looking good – the beetles are surviving in the wild where they continue to munch away.

Once the leaf beetles become more widespread, and willie is under control, dormant (sleeping) native seeds, and those dropped in bird poo, will germinate and reclaim our forgotten places.

### CRAZY BEETLE FACTS

40% of all insects and 25% of all animal species are beetles.