

# MONITORING BIODIVERSITY

## WOODEN DISCS – simulate fallen logs in mature forest



Discs of pine, macrocarpa or other woods, cut from logs 40-60 cm in diameter and 10-20 cm thick (see above) can be used to simulate the fallen logs found in mature native forests. For best results the discs need to be dried and the flattest surface placed on bare soil (i.e. remove leaf litter and grasses, etc before placement on soil). Ideally 6-8 discs should be used for each monitoring site and can be labelled by stapling or nailing tags on the tops of discs.

◀ **Wooden disc with robust label nailed on top**

These discs provide a moist, safe haven for native invertebrates and lizards. Invertebrate species using discs include: spiders, ground beetles, cave weta, snails, slugs, earthworms, flatworms, leaf-vein slugs, harvestmen, centipedes, millipedes, slaters, springtails and mites.



A month or so after disc placement, the populations of these species can be monitored by slowly lifting one side of the disc, counting and/or photographing species beneath and carefully lowering the disc back to its original position without squashing individuals that may have moved.

Ideally any monitoring should happen at the same time/s each year to standardise comparisons over years. A record of species under discs can be kept in a data file with the date of observations. Your findings from your site can be loaded on to NatureWatch NZ (<http://naturewatch.org.nz>). You can set up your own project and even get people to identify your unknown species, and it's free!

#### Reference:

Bowie, M. H. and Frampton, C. M. 2004. A new technique for non-destructive monitoring of soil surface invertebrates for ecological restoration programmes. *Ecological Restoration and Management* 5(1): 34-42.

◀ **Wooden disc with leaf-vein slugs attached beneath**

**Some of the species often found under wooden discs**



Cave weta



Trapdoor spider



Snail



*Pristoderus bakewelli*



Flatworm



Stag beetle



Darkling beetle



Leaf-vein slugs & eggs



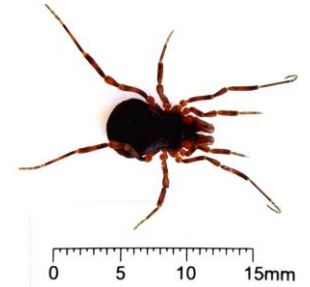
Centipede



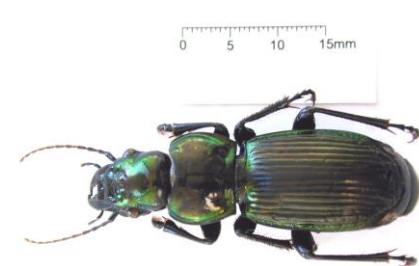
Millipede



Cockroach



Harvestman



Ground beetle (*Megadromus*)



Skink



Native earthworm (green)



Ants



Grass grub beetle



Slater (wood louse)



Millipede (with eggs)



Wireworm