



Education Day - 2 November 2014

Handout notes

Contributors:

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<http://www.quailisland.org.nz>

Invertebrates

- Invertebrates are animals without backbones including insects, spiders, mites, snails, centipedes, worms, etc
- They make up 95% of species on earth
- NZ has some iconic species including giant weta (heaviest in the world at 71g), velvet worm or *Peripatus* (an ancient 'missing link' between worms and insects that spits sticky goo on its prey), alpine weta that can freeze and come back to life, and huia louse (which was extinct before it was discovered!)
- They utilise all habitats on earth
- They have important ecological roles/ecosystem services:
 - Native pollinators e.g. bees, flies, wasps, butterflies
 - Biological control e.g. parasitic wasps, spiders
 - Soil drainage, mixing e.g. worms, beetles, mites
 - Decomposition & recycling e.g. earthworms, flies, millipedes, beetles, mites, springtails
 - Seed dispersers e.g. ants, weta, dung beetles
 - Food for other species e.g. birds, fish, lizards, bats, plants and other invertebrates
 - Cleaners e.g. leaf-vein slugs, beetles

Threats to invertebrates

- Exotic predators e.g. rats, mice, hedgehogs, possums, cats, mustelids
- Habitat loss e.g. clearing, fire
- Global warming
- Exotic invertebrates e.g. German & common wasps, spiders, etc often prey on and compete for resources with the natives species

Invertebrates on Quail Island

- >670 species collected
- 77% NZ endemic
- Some are several Banks Peninsula endemics including:
 - 5 spider species including trap-door spider
 - Ground weta, Cockroach, Snail, Cicada, Darkling beetle, Millipede & Silverfish

References

Bowie, M.H. et al. 2003. A biodiversity inventory of Quail Island (Otamahua): towards the restoration of an invertebrate community. NZ Natural Sciences 28: 81-109.

<http://www.doc.govt.nz/conservation/native-animals/invertebrates/>



Photo 1: Banks Peninsula trapdoor spider



Photo 2: Banks Peninsula endemic beetle



Photo 3: Hover fly feeding on nectar

