

Giant Gippsland Earthworm

Introduction

In the 1870s, surveyors around Warragul found an animal that they thought may have been a snake. They sent it to the then Director of the National Museum of Victoria, Professor Frederick McCoy, who described it as a new species of earthworm and named it *Megascolides australis*. Its common name is the Giant Gippsland Earthworm.



Giant Gippsland Earthworm
Photographer: Alan Yen / Source: Museum Victoria

Although the body lengths of adult specimens average around under one metre, the body can expand and contract, and lengths of over two metres have been recorded. However, body length is not an accurate measure of size, and fresh body weight is more reliable; adults average around 200 g.

Where does it live?

Even though it is a large species, it is not often seen because it lives deep in the soil and never comes to the surface unless flushed out by heavy rain. It is also very restricted in its distribution. It is only found in the Bass River Valley of South Gippsland, in an area of about 100,000 hectares bounded by the towns of Loch, Korumburra and Warragul. However, within that area, it is very patchy in its distribution and is found in a particular type of blue-grey clay within a short distance of water courses, soaks and springs.

The worm burrows can occur from just below the soil surface to a depth of 1-1.5 m with the worms occurring at a median depth of about half a metre. The Giant Gippsland Earthworm, like any other species of native Australian earthworms, leaves its casts underground in its

burrows, and the conical shaped entrances to land crayfish burrows are often mistakenly identified as earthworm casts.

Why is it on the Endangered Species List?

Before European settlement, South Gippsland was predominantly covered by tall, wet eucalypt forest. This vegetation type was extensively cleared for farming leaving small, isolated patches of vegetation. Despite some revegetation undertaken throughout Gippsland; the worms current distribution range remains primarily cleared farmland. The species has survived this massive change because it can go deep into the soil. However, it is considered a threatened species because its range has declined since European settlement. The Giant Gippsland Earthworm is listed as a threatened and protected species under the Victorian *Flora and Fauna Guarantee Act 1988*, and is also listed as vulnerable under the Commonwealth *Endangered Species Act*.



Beverley Van Praagh holding a Giant Gippsland Earthworm during a Museum Victoria fieldtrip c. 1980.
Photographer: Rodney Start / Source: Museum Victoria

Other factors that make the Giant Gippsland Earthworm prone to threat are its slow developmental rate and low reproductive rate. The worms produce a large egg capsule, about 4-7 cm in length, containing a single young which can take over a year to incubate. Baby worms are already 20 cm long when they hatch, but may take several years to reach adulthood. Giant Gippsland Earthworms live in a complex system of burrows and there are still many aspects of its biology and ecology that we know little about.



A Giant Gippsland Earthworm egg

Photographer: Alan Henderson / Source: Museum Victoria

Further Reading

Taylor, S., Crosthwaite, J. & Backhouse, G. 1997. Giant Gippsland Earthworm *Megascolides australis*. Natural Resources and Environment Flora & Fauna Guarantee Action Statement No. 77. 7 pp.

Van Praagh, B. 1992. The biology and conservation of the Giant Gippsland Earthworm *Megascolides australis* McCoy, 1878. *Soil Biology and Biochemistry* 24 (12):1363-1367.