Grupo de Ecoloxía Animal
GEA Universidade Vigo

Gigantism in earthworms: a note on gigantic *Eisenias*

Jorge Domínguez[1] and **Afrânio Guimaraěs**[2]
1 - Universidade de Vigo, GEA (Grupo de Ecoloxía Animal), 36310 Vigo, Spain (jdguez@uvigo.es)
2 - Minhobox, Juiz de Fora, Minas Gerais, Brazil

GIANT EARTHWORMS

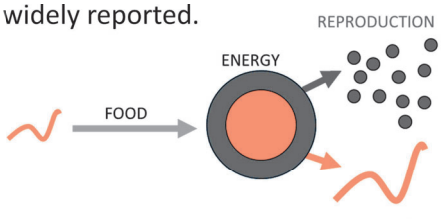
Earthworms vary greatly in size. Depending on the species, adult worms can reach between 10 mm and 3 m in length, with most of length 5-15 cm.

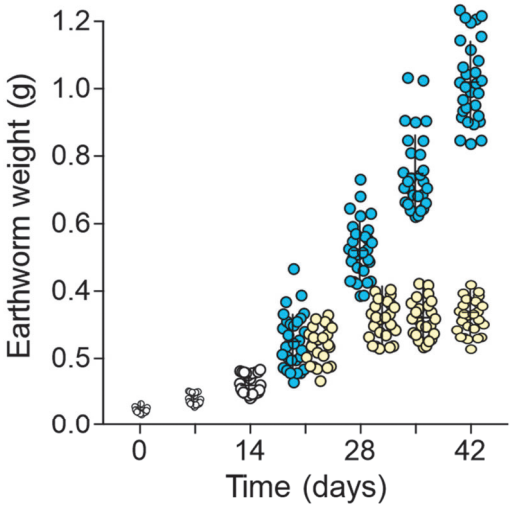
Among the more than 7000 species described to date, very few reach lengths greater than 1 m. The longest worm on record is *Amynthas mekongianus* (mud banks of the Mekong River), which reaches 3 m in length and is about the same size as *Megascolides australis*, the 'Giant Gippsland Earthworm'.

These atypically giant earthworm species remain a scientific curiosity in terms of their biology, but they cannot be considered cases of gigantism.

Gigantism occurs when organisms are much larger than normal or exhibit excessive growth

Eisenia andrei (Bouché 1972) is the earthworm most commonly used in vermicomposting, and its biology, life cycle and growth and reproduction rates have been widely reported.



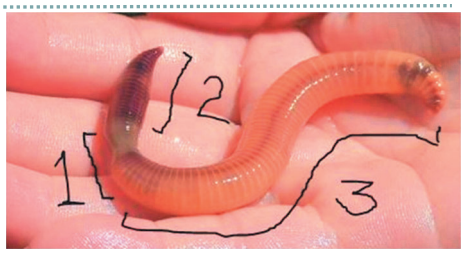


Earthworms obtain energy from the organic matter on which they feed, and growth depends on the quality of the resource and its availability, environmental factors and other biotic factors such as competition.

GIGANTIC *EISENIA*

- RECORD WEIGHT: **9.1 g**
- Species: *Eisenia andrei* (also *Eisenia fetida*)
- Food: Processed cow rumen content
- Temperature: 11ºC
- Time to achieve: 40 weeks

These gigantic earthworms do not excrete casts, do not produce cocoons and their guts remains apparently empty.



- Great dilatation of the body begins only in the segments after the clitellum;
- The typical red coloration of *Eisenia andrei* is maintained only in the segments before the clitellum.
- After the clitellum, these gigantic earthworms have a lighter salmon color.

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