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**PRESS RELEASE**

**20 September 2018**

**UP academic discovers new woodlouse species in termite nests of**

**Kruger Park**

A new species of woodlouse has been discovered inside termite mounds in the northern Kruger National Park, east of Phalaborwa and near Mopani Rest Camp, by University of Pretoria (UP) entomologist Dr Victor Meyer.

There are more than 3 500 species of woodlice in the world, and this is the first time that a species with an affinity for termite nests has been discovered in this family. The Kruger National Park resident, named *Ctenorillo meyeri* after Dr Meyer, was described and published by world authority on terrestrial isopods Prof Stefano Taiti of Florence, Italy, in the peer-reviewed journal *Onychium*.

*Ctenorillo meyeri* belongs to the *Armadillidae* (pillbugs) family, which are generally found living in tropical and temperate regions. Many have adapted to the subterranean environment, even colonising caves and termite mounds.

Dr Meyer explains that although called a louse, *Ctenorillo meyeri* is actually not an insect but a crustacean. The woodlouse has seven pairs of legs with a scaly body of more or less one centimetre in length. The new species “can ably roll up into a ball to protect its vulnerable undersides against predators and the elements,” he adds.

*Ctenorillo meyeri* belongs to the order of isopods, but not all isopods are made equal, meaning some roll and some don’t. Woodlice or isopods breathe through gills underneath their abdomens which need to be kept moist, so by rolling up they retain moisture for longer.

Those with long uropods (last pair of abdominal appendages) cannot roll up. This disadvantage means that breathing is impaired when moisture is unavailable in the substrate or environment where woodlice occur.

Woodlice play a significant ecological role in nutrient cycling by fragmenting woody litter, which includes dead twigs and leaves that they eat. Their droppings help produce compost, and they also aerate the soil.

Dr Meyer explains that termites are herbivores, and therefore will not harm the isopods. “This is an example of commensal symbiosis, as the termites don’t benefit from the presence of the isopods, nor are they adversely affected. However, the isopods gain further protection and access to food inside the termite mounds.”

He says what sets this species apart physically is the number and arrangement of knobs (bosses and tubercles) on the back (dorsum) of the animal, as well as a reduction in the two compound eyes to fewer ommatidia (lens units or little eyes making up a compound eye), and having a body that’s pale-brown in colour. Compound eyes occur in insects and crustaceans and greatly increase their field of view, meaning these organisms are able to see in every direction, although the sharpness of an image produced by a human eye is about 100 times better than that of a compound eye. The disadvantage of a compound eye is the lack of ability to focus.

“Woodlice pose no threat to humans, other than termites, which are often considered pests in agricultural settings and urban environments,” Dr Meyer says. Their predators are ants, spiders and birds.

In the United States, isopods are often called “roly polies”; in New Zealand they are known as “slaters”; and in parts of the United Kingdom they are known as **“cheeselogs”, “chiggy pigs” and “gramersow”.** Other nicknames include “**lea**therjackets”,  “billybuttons”,  “billybakers”, “bellybuttons”, “ticktocks” and *“*ogopogos”*.*

Dr Meyer’s main field of study is termites, which led to a PhD in Entomology from UP. “The mere thought of termites conjures up images of nasty bites, destruction of woodwork, and the nearest pest control company! In natural habitats, however, termites are beneficial, and an integral part of the ecosystem. Termites are very efficient in reducing woody litter to simple organic compounds. They are pivotal in nutrient cycling.”

He says he’s always been interested in nature and paying attention to “the little things that are chronically overlooked and underrepresented in conservation efforts”.

Dr Meyer is thrilled about the species he discovered being named after him. “I feel pretty honoured to be associated with such a unique and interesting critter!”

(Ends)

**Woodlouse pic caption:**

*A scanning electron microscope image of the new species of woodlouse discovered by University of Pretoria entomologist Dr Victor Meyer. (Photo: Prof Stefano Taiti and Dr Cristina Salvatici)*

**Caption for pic of Dr Meyer:**

*University of Pretoria entomologist Dr Victor Meyer. Photo: Nadine Meyer.*

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