

EDIT scientist discovers one of the top ten new species! The discovery of the undiscovered - the work of millipede expert Prof. Dr Henrik Enghoff



Prof. Enghoff on field work

Becoming the explorer of the unknown

Enghoff started early an ambitious scientist career. Being member of a Danish youth naturalist association, he decided already as child to become Denmark's millipede expert- a position not yet taken and promising many new discoveries. Following his career dream, Enghoff studied biology and compiled a PhD about the millipedes of Madeira. Later on he received the position as curator at the Zoological Museum in Copenhagen, a professorship and leading positions within the museum and international networks.

The driving force is the joy he feels when discovering new species and sorting them into their phylogenetic position. He calls this the "stamp collector gene". However, his work goes far beyond a simple collection. His detailed knowledge about the different groups of millipedes allows him to draw conclusions about the evolution of a certain group and helps him recognise the adaptation of a species to its environment. He enjoys recognising the large picture by putting together all the small details.

The shocking pink dragon millipede among the top ten new species!

There are plenty of undescribed millipedes out there in the world- an estimated 70,000. They come in all colours and shapes, some are more outstanding than others. The *shocking pink dragon millipede* from Thailand, , has such a striking colour that it was elected as one of the top ten recently discovered species in 2008 (www.species.asu.edu/Top10_2008). It was discovered by EDIT scientist H. Enghoff of the NHM Copenhagen in collaboration with his Thai colleague Prof. Panha. This discovery lead to a very fruitful collaboration between the two scientists and their students, resulting in several publications, the discovery of additional new species, and regular visits with field and collection work.



The shocking pink dragon millipede
Desmoxytes purpureosa

Thai King supports Thai Danish Millipedes collaboration

Enghoff started to work on Thai millipedes in the early 80ies. Copenhagen possesses a unique millipede collection from this area, which is rich in biodiversity and where at the same time little research has been conducted.

Being aware of this, the Thai government established recently a programme to train their own researchers with the help of international experts. In this way Enghoff has been invited to Bangkok to teach about millipede systematics.

In connection with this course, he discovered together with Prof. Panha the new shocking pink dragon millipede. Due to his experiences, Enghoff understood immediately that this species was a new one and the description was made right away within a scientific publication (see PDF file). The type specimen has been placed in the collections of Chulalongkorn University in Bangkok, where it is a valuable representative of the Thai biodiversity and a symbol of the new biodiversity research in Thailand.

The king of Thailand celebrated his golden anniversary by funding biodiversity research. A PhD student co-supervised by Enghoff and Prof. Panha benefited from this and is now carrying out her research partly in Copenhagen.



Prof. Enghoff returning from the jungle to civilisation

About the discovery of species

New species can be discovered in the field and also in already existing collections. Enghoff has so far described 200 new species, mainly from his research in Thailand, the Canary Islands, and Madeira. However, he also described new species from America and Africa. One of his most surprising discoveries was a new species from continental Europe. This one he discovered rather “accidentally” during a scientific EDIT meeting in the National Park of Almería, Spain in 2008. Waiting for the meeting to start, Enghoff took a little walk around the meeting place, when he slipped and fell down a slope. He finally landed next to a big rock, and – being a curious scientist through and through- he turns the rock around to check for millipedes. What he sees, let him forget about his injuries: a millipede, totally unknown to science!

To find out more about millipedes and Prof. Enghoff’s research, please read his articles:

The shocking pink dragon millipede, *Desmoxytes purpurosea*, a colourful newspecies from Thailand (Diplopoda: Polydesmida: Paradoxosomatidae)

Review of the dragon millipedes, genus *Desmoxytes* Chamberlin, 1923 (Diplopoda, Polydesmida, Paradoxosomatidae)

Text: Dr. Kristina Articus-Lepage, EDIT-PA Officer, RBINS