

Arachnologists discover another giant of the animal world in Laos

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No specific name but still a member of a large club – the harvestman is only one of many huge arthropods in Laos. © Senckenberg

A scientist at the Senckenberg Research Institute in Frankfurt has discovered a harvestman with a leg span of more than 33 centimetres. The creature found during a research trip to Laos is one of the largest representatives of the entire order worldwide. Experts have so far failed to properly identify it to species level.

The reason Dr. Peter Jäger from the Senckenberg Research Institute in

Frankfurt (Germany) originally flew to [Laos](#) in April was to film a major TV production. "In between takes I collected spiders from the caves in the southern province of Khammouan", the Frankfurt arachnologist explains. In doing so, he made a sensational discovery. "In one of the caves I discovered a harvestman that was absolutely huge." The leg span of the gigantic male harvestman was more than 33 centimetres and therefore one of the world's largest. The current record is just over 34 centimetres leg span for a species from South America.

Initially the discovery lay hidden among other organisms and was only recognised as unique when sorted and labelled. "In attempting to categorise the creature properly, however, and give it a scientific name, I soon reached my limits", says Jäger. The Frankfurt scientist deals mainly with huntsman spiders – harvestmen are not his particular field. Even the specialist he consulted, Ana Lucia Tourinho from the National Institute for Research of the [Amazon](#) (INPA) in Manaus, Brazil, who is currently a visiting academic at the Senckenberg Arachnology lab, could only conclude that it is probably the genus *Gagrella* in the Sclerosomatidae family.

"It's a shame we can't identify such an exceptional discovery correctly, i.e. its species", says Jäger, "we haven't dealt with these and related genera from China and neighbouring South East Asia before. Specialists are also unavailable due to the fact that descriptive taxonomy is no longer the main focus of research funding"

As such, the harvestmen of the Sclerosomatidae family have invaluable potential. Specimens can be found in virtually every habitat and they constitute an ecologically very important predator group in the natural food chain.

They could serve as an indicator of the ecological state of the natural and cultural scenery. These long-legged creatures are also of interest to

behavioural scientists and evolutionary biologists. For example, during courtship the male presents a nuptial gift to the female, which is intended to demonstrate his fitness. Only when the female accepts it do they mate.

The Senckenberg arachnologist would now like to investigate the Sclerosomatidae family in a detailed case study using conventional and molecular methods along with his Brazilian colleague and in collaboration with other scientists in Germany, China and Japan. The findings should then be applicable to other groups and regions. "We want to avoid a situation in future where we again lack the experts to classify such unique creatures", says Jäger.

Meanwhile, Laos has turned out to be a veritable land of giants. Other arthropods with similar huge dimensions have been found in the same region – the Laotian huntsman spider *Heteropoda maxima* with a leg span of up to 30 centimetres, the whip scorpion *Typopeltis magnificus* with a span of 26 centimetres and the predatory centipede *Thereuopoda longicornis* with a total span of almost 40 centimetres.

All these organisms are more or less closely linked to caves in these karst areas. "What mechanisms or factors are responsible for this frequency of gigantism is still unclear", says Jäger. One possible explanation is the potentially slower rate of growth in the caves. But the only thing that seems certain is that there is a limit to growth – either due to the lack of oxygen supply to the long appendages or because when fleeing or catching prey long legs can no longer be moved quickly enough.

Whatever the case, Laos offers enough potential to discover great things.

Provided by Natural History Museum

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