

# Aussie wasp on the hunt for redback spiders

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A redback spider-hunting wasp dragging its paralysed prey back to its nest.  
Credit: Florian and Peter Irwin.

(Phys.org)—University of Adelaide researchers say a small native wasp that scientists had forgotten about for more than 200 years is now making a name for itself - as a predator of Australia's most common dangerous spider, the redback.

The wasp (*Agenioideus nigricornis*) was first described scientifically in 1775 by Danish [entomologist](#) Johan Christian Fabricius, thanks to

samples collected in [Australia](#) during Captain Cook's first great voyage (1768-1771).

"Since then, scientists have largely forgotten about the wasp," says Professor Andy Austin from the University of Adelaide's Australian Centre for [Evolutionary Biology](#) & Biodiversity. "It is widespread across Australia and can be found in a number of collections, but until now we haven't known the importance of this particular species."

The wasp is now being dubbed the "redback [spider](#)-hunting wasp" after a family in Beaconsfield, Western Australia, discovered one of them with a paralysed redback spider in their back yard.



*Agenioideus nigricornis*, now also known as the redback spider-hunting wasp.

Credit: Dr Lars Krogmann

Florian Irwin, then aged 9, spotted the wasp dragging the spider several metres to its nest, and his father, Dr Peter Irwin, photographed the event and kept the specimens. Peter, who is an Associate Professor at Murdoch University, contacted the Western Australian Museum about the discovery; the Museum alerted Professor Austin and research fellow Dr Lars Krogmann at the University of Adelaide.

"The museum knew we were doing research into the *Agenioideus*, which belongs to the family Pompilidae, the spider-hunting wasps. Little is known about them, despite various species of *Agenioideus* being distributed throughout the world," Professor Austin says.

"We're very excited by this discovery, which has prompted us to study this species of wasp more closely. It's the first record of a wasp preying on redback spiders (*Latrodectus hasselti*) and it contributes greatly to our understanding of how these [wasps](#) behave in Australia."

With a body less than a centimetre in length, an adult redback spider-hunting wasp is no bigger than its prey. It stings and paralyses the redback spider and drags it back to its nest, where the wasp lays an egg on it. The spider remains alive but is paralysed. Once the egg hatches, the larval wasp feeds on the spider.

"The redback spider is notorious in Australia, and it has spread to some other countries, notably Japan and New Zealand. Redbacks are one of the most dangerous species in Australia and they're mostly associated with human dwellings, which has been a problem for many years," Professor Austin says.

"The redback spider-hunting wasp is doing its part to keep the population of redback spiders down, but it doesn't hunt all the time and is unlikely to completely eradicate the spiders."

Dr Krogmann (who is now based at the Stuttgart State Museum of Natural History) and Professor Austin have published a paper about the [redback spider](#)-hunting wasp in this month's issue of the *Australian Journal of Entomology*.

Provided by University of Adelaide

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