

Fish-eating spiders discovered in all parts of the world

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Dolomedes facetus captured pond fish (genus *Xiphophorus*) in a garden pond near Brisbane, Queensland, Australia. Credit: Peter Liley, Moffat Beach, Queensland

Spiders are traditionally viewed as predators of insects. Zoologists from Switzerland and Australia have now published a study that shows: spiders all over the world also prey on fish. The academic journal *PLOS ONE* has just published the results.

Although viewed by ecologists as the classical predators of insects, researchers have become increasingly aware that spiders are not exclusively insectivorous. Certain larger-sized species supplement their diet by occasionally catching small [fish](#). This shows a new study by zoologist and spider expert, Martin Nyffeler from the University of Basel, Switzerland and Bradley Pusey from the University of Western Australia. The researchers gathered and documented numerous incidents of spiders predating fish from all around the world.

Fish as a diet supplement



This is an adult male of *Ancylometes* sp. (possibly *Ancylometes rufus*) caught characiform (*Cyphocharax* sp.) near Samona Lodge, Cuyabeno Wildlife Reserve, Ecuador. Credit: Ed Germain, Sydney, Australia

According to their systematic review, spiders from as many as five families have been observed preying on small fish in the wild and three more families contain species that catch fish under laboratory conditions. These so called semi-aquatic spiders typically dwell at the fringes of shallow freshwater streams, ponds or swamps. These spiders, some of which are capable of swimming, diving and walking on the water surface, have powerful neurotoxins and enzymes that enable them to kill and digest fish that often exceed them in size and weight.



This is an adult *Ancylometes sp.* preying on characiform near Samona Lodge, Cuyabeno Wildlife Reserve, Ecuador. Credit: Tim Wohlberg, Kelowna, BC Canada

"The finding of such a large diversity of [spiders](#) engaging in fish predation is novel. Our evidence suggests that fish might be an occasional prey item of substantial nutritional importance", says Martin

Nyffeler.

More information: Martin Nyffeler & Bradley Pusey (2014) Fish Predation by Semi-Aquatic Spiders: A Global Pattern. *PLOS ONE* [dx.plos.org/10.1371/journal.pone.0099459](https://doi.org/10.1371/journal.pone.0099459)

Provided by University of Basel

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