

Caught in the web: Exploring spider predation on bats in Europe

Héctor Ruiz- Villar¹, Cecilia Montauban^{2*}, Ana Pino-Blanco³, Elena Tena⁴

¹Independent Researcher, Villablino, Spain; ²Department of Life Sciences, Imperial College London, UK;

³Essex Bat Group, UK; ⁴Department of Ecology and Evolution, Doñana Biological Station (CSIC), Spain

[*montauc50@gmail.com](mailto:montauc50@gmail.com)

Background

The evolutionary arms race between bats, their prey and their predators has long captivated researchers. But a lot remains unknown about the trophic ecology of bats and their predator-prey interactions.

Spiders prey on a wide variety of vertebrates including bats. However, only 4 cases of spiders predating on bats are known from temperate regions – two in North America, and two (unconfirmed) cases in Europe.

Aim

We report four incidences of predatory interactions between bats and spiders in Europe.

Entangled adults

An entangled dead pipistrelle bat in the spider web of a female noble false widow spider, *Steatoda nobilis*, was reported in Norfolk, UK (Fig a below).



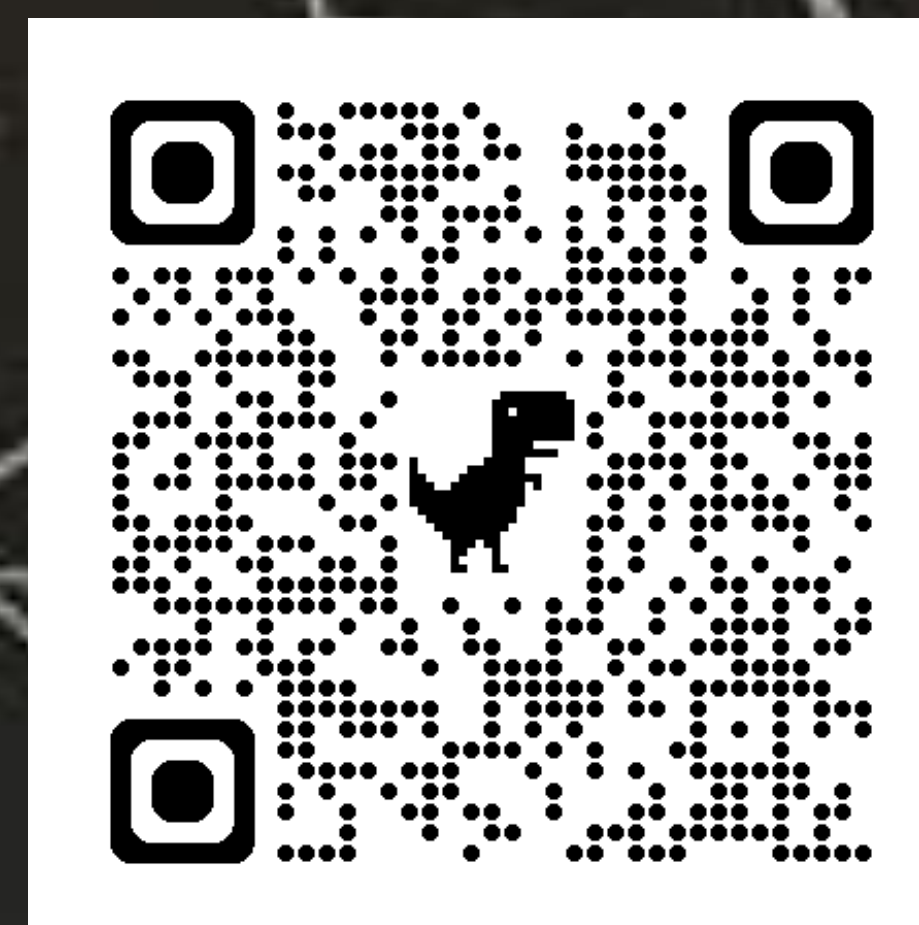
Caught in bat boxes

A soprano pipistrelle found wrapped in thick spider web in a wooden bat - alive and alongside hatched spiderlings - in Essex, UK (Fig b-c above).

An adult pipistrelle bat found dead inside Schwegler 2FN bat box in London, wrapped completely in thick spider web (Fig d - e above).

Pup predation

We report the first detailed documentation of the capture, killing and consumption of a common pipistrelle bat pup by an *Eratigena* spider in NW Spain. See the figure and video below.



Watch the video
and check out the
article!



Discussion

We report the first case of a spider immobilising and consuming a bat in Spain, and the first record of bat predation by an Agelenid spider globally. *Eratigena* house spiders, known for their large size, venom, and funnel webs where they await prey – successfully trap even bats.

Similarly, false widow spiders are also capable of consuming vertebrates despite their smaller size, by using potent venom and constructing extremely sticky and strong webs.

While we document bat mortality through entanglement, further research is needed to document these interactions and establish whether the spiders consume the bats they capture in their webs.

Acknowledgments - We thank the Iberian Spiders group and the British Arachnological Society for their help with identifying the spider species. We also thank The Royal Parks, and members of the London and Essex Bat Groups, for their help in undertaking the bat box surveys.