

# The largest bat in Europe inhabited northeastern Spain more than 10,000 years ago

October 29 2009

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This is what the bat, *Nyctalus lasiopterus*, looks like nowadays. Credit: A.G. Popa-Lisseanu et al. /SINC

Spanish researchers have confirmed that the largest bat in Europe, *Nyctalus lasiopterus*, was present in north-eastern Spain during the Late Pleistocene (between 120,000 and 10,000 years ago). The Greater Noctule fossils found in the excavation site at Abríc Romaní (Barcelona) prove that this bat had a greater geographical presence more than 10,000 years ago than it does today, having declined due to the reduction in vegetation cover.

Although this research study, published in the journal *Comptes Rendus*

*Palevol*, is the second to demonstrate the bat's presence in the Iberian Peninsula, it offers the first description in the [fossil](#) record of the teeth of *Nyctalus lasiopterus* from a fragment of the left jaw.

"It is an important finding because this species is not common in the fossil record. In fact, the discovery of *Nyctalus lasiopterus* at the Abric Romaní site (Capellades, Barcelona) is one of the few cases of fossils existing on the species in the European Pleistocene", Juan Manuel López-García, principal author of the work and researcher at the Institute of Social Evolution and Human Palaeoecology at the Rovira i Virgili University (URV), tells SINC.

The analysis of the fossilised remains found at the site during the campaigns from 2004 to 2006 reveals that the largest bat in Europe inhabited north-eastern [Spain](#) more than 10,000 years ago. "*Nyctalus lasiopterus* is a fairly unknown species nowadays, with an indistinct geographical distribution in the peninsula, which does not include the region of Catalonia", adds López-García.

## **Distribution due to environmental factors**

"The presence of *Nyctalus lasiopterus* in the north-eastern Iberian Peninsula strengthens the evidence that this species had a wider geographical range during the Pleistocene than today", says the palaeontologist. During the mild periods, when the development of vegetation gave these animals refuge, the Noctule had a wider territory.

Until now, the large bat had been located in mountainous regions such as the Eastern Pyrenees, the Cantabrian Mountains, the central mountain range or open Mediterranean landscapes where oaks, holm oaks and pines dominate.

However, the study confirms a change from the distribution of the

species during the Late Pleistocene and the Holocene (less than 10,000 years ago) to now. "The reduction in vegetation cover could be the reason for the current low densities of the species and its biased geographical distribution", concluded López-García.

More information: López-García, Juan Manuel; Sevilla, Paloma; Cuenca-Bescos, Gloria. "New evidence for the greater noctule bat (*Nyctalus lasiopterus*) in the Late Pleistocene of western Europe" *Comptes Rendus Palevol* 8(6): 551-558 Sept 2009.

Source: FECYT - Spanish Foundation for Science and Technology

Citation: The largest bat in Europe inhabited northeastern Spain more than 10,000 years ago (2009, October 29) retrieved 9 June 2023 from <https://phys.org/news/2009-10-largest-europe-inhabited-northeastern-spain.html>

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