

Press release

Tangible impact of climate change

Redeia, the FCQ, and IREC detect mosquitoes in the Picos de Europa mountains that are potential transmitters of lethal diseases for birds and animals

Despite the presence of these insects, the researchers have so far not found carriers of pathogens that can threaten the health of wildlife

The study is currently underway in a permanent monitoring station in the Sierra del Cuera, that was set up in 2024 as an initiative of Redeia's Comprehensive Impact Strategy.

Rising temperatures, driven by climate change, are making it easier for mosquitoes to live in the highest areas of the Cantabrian mountain range where they were not able to survive before

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Mosquitoes potentially capable of transmitting West Nile fever or bird flu, two of the deadliest diseases for wildlife, have been detected in Sierra del Cuera (Asturias). This is the preliminary result of a research project started in 2024 by Redeia, parent company of Red Eléctrica, and the Bearded Vulture Conservation Foundation (FCQ). In collaboration with the Game and Wildlife Research Institute (IREC-CSIC), that aims to reveal the impact of climate change on mountain habitats.

It is an innovative study because it is the first time that a permanent biological monitoring station has been set up in an Atlantic mountain environment. The results collected in this station over the first six-month period reveal **the presence of the four most important disease vectors**: mosquitoes, black flies, sand flies, and even drain flies. The most worrying of these is the presence of 'Culex' mosquitoes, the main vector of the 'West Nile' virus, the cause of 'West Nile fever.'

However, the samples collected between June and 31 December 2024 found no carriers of these important pathogens that could endanger the health of wildlife in the region.

'There are still many days and a lot of collecting campaigns to go, but we hope to have enough data in the future to predict the period of greatest risk. Our goal is to implement protective measures such as vaccination or the use of mosquito nets, as necessary, in facilities dedicated to the release of new specimens,' explained **the IREC-CSIC veterinary doctor, Úrsula Höfle**, who stressed the importance of having this 'permanent monitoring station' in the Sierra del Cuera.

Even so, the first few months of research have added a **hopeful conclusion**: a smaller number of mosquitoes and hematophagous vectors have been captured in the Picos de Europa than in other research projects in places at a similar altitude in the Pyrenees.

This is due to the greater climate variability in the Atlantic region, affecting the Sierra del Cuera and Picos de Europa. The variability is less favourable to large mosquito populations compared to the more stable Mediterranean climate of the Pyrenees, where the bearded vulture population thrives. The results confirm the concerns about climate change and its consequences for the reintroduced colony of bearded vultures and the rest of the wildlife in the zone.

Sierra del Cuera, biological monitoring station

The samples are collected regularly in Sierra del Cuera (Asturias) and sent to IREC in Ciudad Real, where the excrements of these insects are also analysed. These samples would enable the detection of the bird flu virus (H5N1), which is fatal for bearded vultures, as has been shown in various cases in the peninsula.

The project '[Conservation area for bearded vultures in the Sierra del Cuera](#)' forms part of Redeia's Comprehensive Impact Strategy and is a result of the relationship that the company and its subsidiary established with FCQ in 2022 to support the recovery of bearded vultures in the Iberian peninsula and which is also manifest in the support for the species in Aragon, Asturias and the Maestrazgo.

The initiative aims to create a large series of scientific data to learn about the impact of climate change on the mountain habitat and especially this important species that, despite decades of work to ensure its recovery, continues to be in danger of extinction. This knowledge would not only benefit the wildlife, but also the biodiversity of the region

For the **director of the Bearded Vulture Conservation Foundation, Gerardo Báguena**, 'Effective conservation of endangered species like the bearded vulture means that we must have the best information possible, because the events that impact the ecology of this species are very diverse and changeable. The emergence of diseases, the disappearance of



extensive cattle farming, rising temperatures, and landscape changes i contribute to impacts that require deeper knowledge for effective anticipation, if possible.'

For his part, **the head of Red Eléctrica's Environmental Department, Fernando Crespo** underlined Redeia's commitment to protecting wildlife, which is a permanent concern in the deployment of infrastructures for the electricity transmission grid. 'We look for the best possible coexistence between our installations and the biodiversity, especially with regard to wildlife, as we have shown in our preventive action, with measures such as the installation of bird protectors or the 'Flight corridors' project, but also by being proactive in collaborating with entities like FCQ to support conservation and to recover species as significant as the bearded vulture', he said.