

Traduction video Chauve-souris

Selon une étude récente, si l'on veut protéger les chauve-souris, les forêts ne devraient pas être utilisées pour l'implantation d'éoliennes.

Tout au long de la transition énergétique il devient de plus en plus difficile de trouver des emplacements pour les éoliennes. Et celles-ci se retrouvent alors en forêt, au détriment de la population de chauve-souris ;

L'étude du Leibniz Institute for Zoo and Wildlife Research IZW), publiée dans le *Journal of Applied Ecology* a démontré que les espèces de chauve-souris vivant en forêt sont, certes, sauvées, avec un habitat situé au-dessous des pales. Mais là où les machines sont érigées, leur habitat est détruit

Les sites forestiers ne peuvent servir comme emplacement d'éoliennes que exceptionnellement, lorsque les chauve-souris font l'objet de mesures de protection. Le nombre d'éoliennes croît exponentiellement, en lien avec les objectifs climatiques mondiaux. En Allemagne, 30 000 éoliennes tournent aujourd'hui. Néanmoins des restrictions à leur installation prévalent sur les terrains à proximité de villages ; d'où le phénomène croissant d'implantation en forêt.

Dr. Christian Voigt de Leibniz-IZW : « Les chauve-souris qui chassent des insectes au-dessus des arbres risquent de se heurter aux éoliennes directement; ou de ne pas survivre à l'intense pression de ses pales ». Voigt et son équipe ont étudié les chauve-souris qui chassent en-dessous de la cime des arbres, en installant des détecteurs ultrasoniques sur 24 sites, dans une forêt du Land de Hesse. Les chauve-souris ont été classifiés en trois catégories : celles qui chassent au-dessus de la cime des arbres ; celles qui volent très haut dans le ciel ; et les espèces ayant leur habitat en forêt.

Les chercheurs ont pu remarquer que, pendant l'été, les espèces vivant en forêt devenaient beaucoup moins actives, à proximité des éoliennes dotées de longues pâles. L'étude conclut que les éoliennes constituent non seulement une menace pour les chauve-souris qui chassent des insectes dans le ciel, mais aussi pour celles qui ont leur habitat au milieu de la forêt. Voigt élabore : « les derniers perdent des centaines de mètres d'habitat, en évitant la pression des éoliennes ».

Les éoliennes n'ont pas leur place en forêt, plus spécifiquement en forêt quasi naturelle à la végétation variée. Si, ponctuellement, la pose en forêt est inévitable, un système de compensation doit être trouvé. Les auteurs proposent, entre autre, qu'une large zone de forêt soit réservée à la protection de cet espèce menacée.

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Detrimental effect of wind turbines on bats revealed by ultrasonic detection

By Jonathan Wilson

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Forest sites should not be used for wind turbine installations in order to protect forest bats, according to new research.

As more and more wind turbines are installed in the course of the energy transition and distance regulations to human settlements are tightened, suitable locations are becoming increasingly difficult to find. As a result, wind turbines are increasingly being erected in forests, to the detriment of forest specialists among bats.

In a new study, a team of scientists led by the Leibniz Institute for Zoo and Wildlife Research (Leibniz-IZW) demonstrated that forest specialists among bats, which forage below the treetop and thus do not have an increased risk of colliding with turbines, avoid the vicinity of wind turbines.

Forest sites should therefore either not be used at all for wind turbines or only in exceptional cases with mandated compensatory measures to protect forest bats, the team concluded in a paper published in the *Journal of Applied Ecology*.

The number of wind turbines being installed worldwide in order to meet the goals of national climate strategies is increasing exponentially. In Germany, around 30,000 onshore wind turbines are currently in operation. However, the open areas on which wind turbines are tolerated near towns and villages are limited. For this reason wind turbines are increasingly being erected in forests.

“Forests are sensitive ecosystems and valuable habitats for many rare and protected bat species”, said Dr Christian Voigt, head of the Department of Evolutionary Ecology at Leibniz-IZW.

“Wind turbines in forests can cause problems for bats in several ways. Bats that hunt for insects above the treetops can be killed directly at the turbines if they collide with the rotor blades or do not survive the intense air pressure differences near the blades. Bats that hunt in the vegetation below the treetops lose part of their habitat because of the creation of clearings.”

The bats’ habitat could also deteriorate in the wider vicinity of wind turbines and clearings if they are disturbed by the operation of the turbines.

Together with colleagues from Phillips-Universität Marburg and Kiel University, Voigt and his student primarily looked at those bats that forage below the treetop in the shelter of the vegetation. To do this, they monitored the activity of bats using ultrasound detectors at different distances from the wind turbines at 24 forest sites in Hessen.

The scientists classified the recorded calls into three groups of bats. Firstly, those that forage in open areas (e.g. above the treetops); secondly, the species that hunt at edge structures; thirdly, the specialists for foraging in narrow spaces, for example forest specialists below the canopy such as the bats of the genera mouse-eared bats (*Myotis*) or long-eared bats (*Plecotus*).

“These forest specialists were significantly less active close to wind turbines, especially near turbines with large rotors, and during midsummer months,” said Voigt. Starting from a distance of 450m towards wind turbines, the activity of these bats dropped by almost 50 per cent close to the turbines.

The researchers said that wind turbines at forest sites thus not only pose a direct threat to those bats that hunt for insects above the treetops, but also deteriorate the habitat for bats that live below the treetops in the forests and hunt for insects there.

“Even though forest specialists are not at risk of colliding with turbines, they are nonetheless suffering from wind turbines in forests due to habitat loss as they avoid operating wind turbines over a distance of several hundred metres,” Voigt added.

The authors recommend that wind turbines should not be sited inside forests but in the open landscape and, in particular, that near-natural forests with a varied vegetation structure should be avoided.

If wind turbines have to be erected in forests, compensatory measures are essential. A pivotal component of these mandated compensatory measures should be to set aside an appropriately large area of forest as a wilderness area for forest specialist bats, so that the loss of habitat caused by the operation of the turbines is compensated for.





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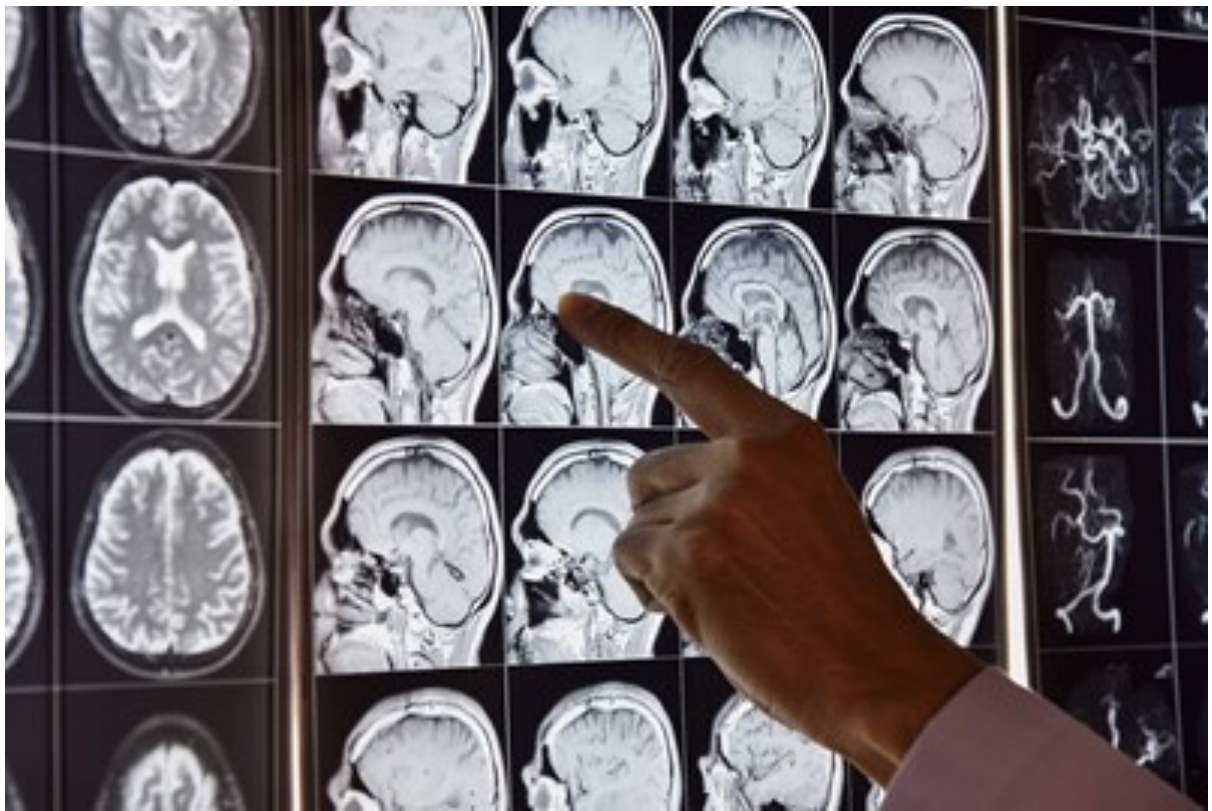


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