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LIFE20 NAT/AT/000049 | LIFE NBI

Electrocution and Fire Risk: Northern Bald Ibis killed by electrocution on a medium-voltage pylon

Electrocution by unsecured medium voltage pylons is responsible for around 45% of European Northern Bald Ibis deaths. This makes it by far the most common cause of death for this endangered bird species, newly reintroduced to Europe. Just recently, five young birds in Salzburg and Carinthia lost their lives on unsecured power poles. One of the carcasses caught fire as a result of the electric shock, thus posing a severe fire hazard. Conservationists are calling for medium-voltage pylons to be secured nationwide in order to eliminate the threat for large birds and any resulting fire hazards. The effectiveness of this measure is clearly demonstrated by Germany, where medium-voltage pylons have now been secured nationwide.

The Northern Bald Ibis is an endangered migratory bird that is being reintroduced to Europe as part of a European LIFE project (LIFE20 NAT/AT/000049), with ten partners hailing from Germany, Austria, Switzerland, and Italy and under the direction of Zoo Vienna. Currently, the population stands at around 200 birds, with about 40 young Northern Bald Ibises fledged in four breeding colonies in 2022. After leaving their nests, they favour sleeping and resting on the power poles.

While high-voltage pylons provide safe resting places for the Northern Bald Ibis and other bird species, the smaller, and much more common, medium-voltage pylons can become death traps due to their design. Electrocution occurs when the birds either touch two wires simultaneously with their wings or beaks, or establish a connection between a wire and the grounded pylon.

The most recent deaths occurred in Rosental (in Carinthia), in the municipality of Mühlbach and in the city of Salzburg near the airport. One of the victims in Salzburg remained lying on the pylon and began to burn as a result of the electrical current flow. There are numerous documented cases of victims which began to burn post-electrocution. If they fall on dry ground, they cause a high bushfire risk. And this potential risk becomes significantly higher nowadays due to the increased droughts attributed to climate change.

Most Northern Bald Ibises of the European population carry GPS transmitters and individuals killed by electrocution can thus be located and tracked down. Thanks to this extensive monitoring, this population has become an indicator species for the threat of electrocution, which caused 45% of deaths in the time from 2014 to 2019.

Johannes Fritz, manager of the LIFE project: “Due to their size and their preference for exposed resting places, ibises are at severe risk of electrocution. We also must assume that many other large bird species, such as eagle owls, kites, buzzards or storks similarly fall victim to unsecured electrical towers.” This is, for example, indicated by a black stork which was found dead under one of the poles in Salzburg where an ibis had met a similar fate.

The area-wide, deadly danger for large birds from unsecured power poles can be easily avoided by technical measures such as covering or isolation of the power lines. Germany demonstrates how effective these measures are. In recent years, its medium-voltage power poles have been secured nationwide by electricity network operators due to a legal decree. Since then, no more cases of electrocution of Northern Bald Ibises have been documented in Germany, despite the birds spending a lot of time there.

In Austria, the Northern Bald Ibis team is currently working closely with power grid operators in the three federal states of Salzburg, Carinthia and Upper Austria. Some regional security measures have already been implemented in the breeding areas and more are being planned for the near future.

Johannes Fritz: "Ultimately, we need nationwide retrofitting of medium-voltage pylons, similarly to what has already been implemented in Germany. The political decision-makers are in charge for creating the appropriate legal framework. The current situation of the birds burning on the electrical towers demonstrates that this is not just about bird protection. The fire risk caused by the numerous electrocution victims is increasing alarmingly due to climate change. The retrofitting of power poles is therefore of increasing social and economic interest."

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Image (1) Burnt young bird on the power pole. This pole has already been secured by so-called mass deflectors. However, this type of security has proven to be insufficient.

Image (2) Northern Bald Ibises and many other bird species use power poles as exposed resting places. However, unsecured poles pose a deadly threat to them.

Image (3) Northern Bald Ibises on a medium-voltage pylon; five birds died from electrocution on this pole.

Image (4) By covering or insulating the lines, power poles become safe resting places.

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