

GREFA Actions to Mitigate Mortality on Power Lines



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INTRODUCTION

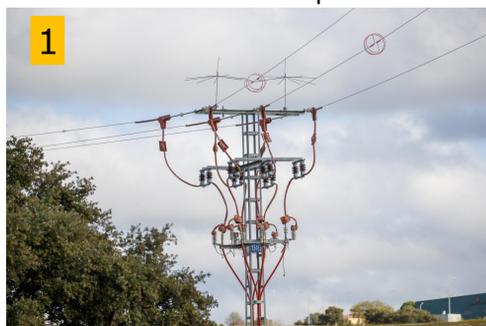
Electrocution constitutes a significant anthropogenic mortality factor in Spain, particularly affecting avian species that interact with medium- and high-voltage power lines. The configuration of overhead electrical infrastructures, especially inadequately insulated pylons, increases the risk of fatal contact and short-circuiting events. Despite regulatory frameworks and mitigation strategies, electrocution remains a persistent conservation and technical challenge within the Spanish territory.

MATERIAL AND METHODS

- **Power line mitigation actions:** GREFA has implemented measures to reduce wildlife (mainly avian) mortality associated with hazardous electrical infrastructure within conservation frameworks.
- **AQUILA a-LIFE project:** In addition to the retrofitting of electrical poles, targeted training has been provided to all involved working groups, including installers of anti-electrocution and anti-collision mitigation devices.
- **Monitoring and partnerships:** Establishment of technical and volunteer survey teams, development of risk databases, and collaboration with specialized companies to promote corrective actions and awareness.

RESULTS

1. More than 10,000 hazardous power line poles in Spain retrofitted by 2025 using GREFA's own funds and in collaboration with electricity distribution companies and European projects.
2. Four experimental studies on anti-electrocution materials conducted under controlled captive conditions, in collaboration with the Spanish Ministry for the Ecological Transition and the Demographic Challenge (MITECO), Iberdrola, UFD-Naturgy, and Shemar.
3. On-site training courses, online courses (10.000 registered participants), and specialized capacity-building activities, available at: <https://cursos.aquila-a-life.org/>
4. White Paper on Electrocutions in Spain. <https://aquila-a-life.org/index.php/es/>
5. Founding members of the SOS Power Lines Platform (Plataforma SOS Tendidos Eléctricos) made up of Spanish NGOs to raise awareness of the problem.



FREE ONLINE COURSE ON ELECTROCUTIONS AND WILDLIFE

CONCLUSIONS

Collaboration between specialized NGOs such as GREFA, electricity distribution companies, and public authorities enhances the technical and scientific effectiveness of power line mitigation strategies. This multisectoral framework enables the experimental validation of anti-electrocution solutions, the standardization of technical protocols, and rigorous before-after scientific monitoring of interventions. By grounding actions in empirical evidence, this approach minimizes technical improvisation and maximizes the cost-effectiveness of conservation investments.