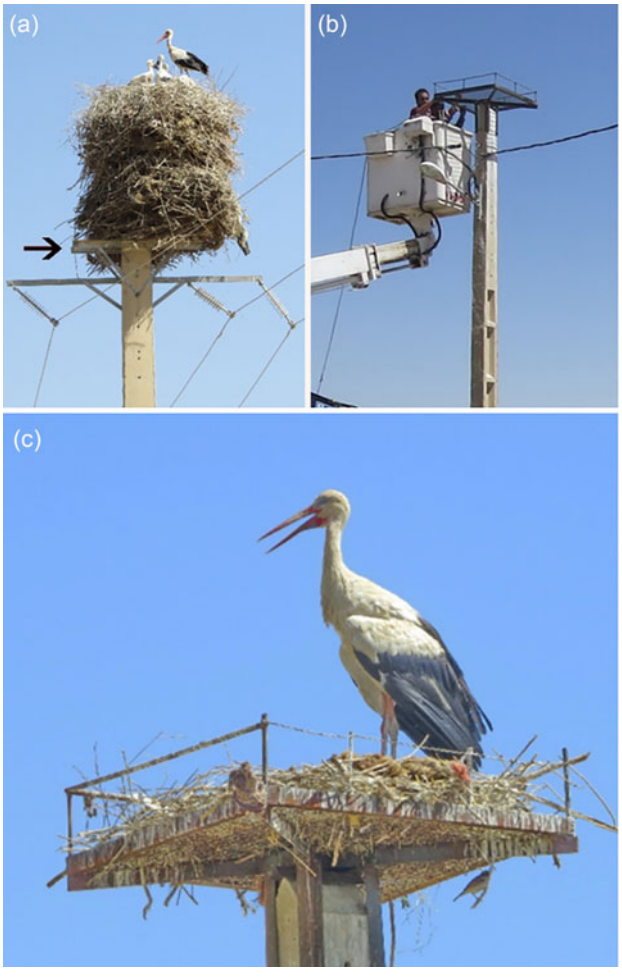
## White stork conservation: first use of nest platforms on power poles in Iran

Overhead power lines are a global threat to birds. Because of its large body and tendency to nest on power pylons, the white stork *Ciconia ciconia* is highly susceptible to collision with power lines and electrocution. One of the main breeding habitats of this bird in central Iran is around the Bishe-Dalan Wetland, in Kapar-Joudaki village, Lorestan Province, where 33 pairs breed on low- and medium-voltage power distribution lines (220 V and 20 kV, respectively).

In 2020, Iran's Birds and Power Lines Committee received five reports of white stork electrocutions. We discovered that 20 kV power lines in the region were equipped with electrical components hazardous to birds such as pin-type insulators, fused cutouts and pole-mounted transformers, and nests on power poles were susceptible to being blown off in strong winds. We contacted the provincial energy utility company and recommended actions to prevent electrocutions and save nests. At the same time, we held two workshops for local residents, utility company personnel and a provincial environment agency, to raise public awareness and to discuss mitigation measures.




White stork *Ciconia ciconia* conservation project in central Iran: (a) reconfiguration of 20 kV medium-voltage power line (the arrow shows the original crossarm), (b) installation of first nest platform on 220 V low-voltage power pole, and (c) occupation of nest platform. Photos: Mahmood Kolnegari.

In the first phase of the mitigation project, in 2021, a medium-voltage line was reconfigured to make it bird-friendly. The utility company removed 75 pin-type insulators and installed the same number of suspended insulators on new crossarms suspended below the original arms. The original crossarms were left to provide nesting support. An energy pole with a fused cutout and transformer was relocated outside the stork's preferred habitat.

We then constructed a 60 × 60 cm metal nesting platform and donated it to the utility company. It was installed in late autumn 2021 and a pair of storks used the platform in spring 2022, the first powerline-mounted nest platform occupied by white storks in Iran. This success motivated local people who had taken part in the workshops. They constructed 23 nest platforms, and these were installed on a low-voltage power line by the utility company. All the platforms were used by breeding pairs in spring–summer 2023. In 2 years of monitoring there have been no electrocutions and no nests have been blown off the new platforms.

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## Reasons for hope: an ecological corridor for the northern muriqui

The northern muriqui *Brachyteles hypoxanthus* is a treetop-dwelling primate, endemic to the Atlantic Forest of Brazil, with a total of c. 1,000 individuals distributed in 12 small and isolated forest remnants. Most of the remaining populations are probably not viable in the long term without reintroduction or translocation of individuals and improvements in habitat connectivity.

Since 2014, the Save The Muriqui Project led by the Brazilian NGO Rede Eco-Diversa has been protecting the northern muriqui in Caparaó National Park, south-east Brazil. Previously unknown muriqui groups have been discovered in the Park (Kaizer et al., 2016, *Oryx*, 50, 201), where nearly 300 muriquis survive. Despite being protected, the northern muriqui there suffers from the effects of fragmentation and the expansion of agriculture outside the Park, both of which hinder the dispersal of females between social groups.