New studies highlight energy development's impact on birds

April 20 2016

Ornithology journal *The Condor: Ornithological Applications* is publishing a Special Section of open access articles highlighting the impact that energy development is having on North America's bird populations.

"Although renewable energy may offer a 'greener alternative' to traditional energy sources, mounting evidence suggests that renewable energy infrastructure and the power transmission lines needed to serve them may impact avian populations," according to lead editor Jennifer Smith, a post-doctoral research associate at the Virginia Polytechnic Institute & State University. "Most avian-energy research has focused historically on direct effects of avian collision or electrocution with overhead power systems, and more recently on avian collisions at wind energy facilities. While research has expanded to consider indirect effects, large gaps in our knowledge persist."

The editors behind the Special Section hope to address these gaps by increasing our understanding of avian interactions with renewable energy infrastructures and identifying areas for future research. The collection of papers was inspired by symposia hosted at the 2014 joint meeting of the American Ornithologists' Union, the Cooper Ornithological Society, and the Society of Canadian Ornithologists, and at the 2014 meeting of the Raptor Research Foundation. Topics addressed include:

- How wind energy infrastructure is impacting the reproductive success of Horned Larks and McCown's Longspurs in Wyoming

- The effects of oil and gas development in Alberta and the Northwest Territories on Canada's boreal birds
- Whether wind towers in the Great Plains region pose a risk to wintering Sandhill Cranes
- How migrating raptors alter their flight behavior in response to power line construction
- How energy development stacks up against other manmade threats to birds

"Birds have complex interactions with energy infrastructure. The diverse papers in this Special Section evaluate threats that manifest themselves in different ways across species, landscapes, and types of infrastructure," says Condor Editor-in-Chief Phil Stouffer. "With the expected trajectory of energy development, particularly renewable resources, it will become increasingly important to manage risks to wildlife. We hope ornithologists can inform decisions about energy development using information like we're publishing here."

The six open access papers comprising the Special Section will be published April 20, 2016, and will be available at http://www.aoucospubs.org/toc/cond/118/2.

Provided by http://www.eurekalert.org/emb_releases/2016-04/copo-nsh041316.php