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Colorado State University and USDA Researchers Find Potential Solution for Woodpecker Damage to Utility Pole Crossarms

FORT COLLINS - Woodpeckers cause millions of dollars in damage to wooden utility poles around the world by pecking and drumming, but now researchers at Colorado State University and the U.S. Department of Agriculture's Animal and Plant Health Inspection Service have found that coating crossarms with a polyurea elastomer applied by Brooks Manufacturing Inc. stopped the woodpeckers from harming the crossarms without harming the birds.



Pileated woodpecker on coated crossarm

Utility pole crossarms are 4-by-6-inch-wide and 8-foot-long wooden beams that are mounted horizontally on poles to support

electrical wires. Polyurea elastomer is a coating material similar to those applied as truck bed liners, however this particular coating has stronger tensile strength, elongation and tear resistance.

In the United States, pileated woodpeckers cause severe damage to poles, especially when the birds excavate nests and roosting cavities. Woodpeckers also use utility poles to search for insects and defend their territory. The woodpecker damage promotes decay by allowing water into holes, which leads to premature replacement and may contribute to collapse under adverse weather conditions – and create safety hazards to utility workers.

This study was conducted at the National Wildlife Research Center, where 18 pileated woodpeckers that were caught and later released were presented with uncoated crossarms and crossarms that were coated with the polyurea elastomer. Biologists tracked the birds' pecking progress for 10 days and found no measurable damage to the coated crossarms, while the woodpeckers pecked away an average of 29.5 grams of dried wood from the uncoated crossarms.

The effectiveness of the coating could be of great economic benefit to the utility industry by increasing the lifespan of each utility pole crossarm, which can range in price from \$22 to \$35. The polyurea elastomer coating would cost \$30 to \$45 for each utility pole crossarm, making the total cost less than longer-lasting fiberglass crossarms that are sometimes used, which cost \$65 to \$120. More studies are needed to determine whether coated wooden crossarms are more cost effective than other materials over the lifetime of the utility structure.

The findings were recently published in the Journal of Wildlife Management. Brooks Manufacturing Inc. is located in Bellingham, Wash.