

Evaluation of an Electronic Device for Reducing Damage by Pileated Woodpeckers to Wooden Utility Poles

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ABSTRACT Woodpecker damage to utility poles results in significant economic losses to utility companies. Pileated woodpeckers (*Dryocopus pileatus*), one of the largest woodpeckers in North America, can severely damage utility poles. Many types of repellent techniques have been evaluated for managing pileated woodpecker damage to utility poles. However, each technique has short-comings including cost, difficulty of installation, longevity of the product, or defeat by the woodpeckers. The Sonic Dissuader, a deterrent device, has shown some promise in field testing. We further evaluated the effectiveness of the device for deterring pileated woodpeckers from damaging utility poles in controlled flight pens at the National Wildlife Research Center, Fort Collins, Colorado. Birds spent similar time ($F_{1,7} = 0.00$, $P = 0.9621$) on poles with Sonic Dissuaders (6956.3 ± 1421.4 sec), and poles with the control device (8358.6 ± 1004.2 sec). Woodpeckers spent less time pecking on poles with the Sonic Dissuader (385.9 ± 69.1 sec) compared to control poles (1877.6 ± 494.2 sec) although the difference was not significant ($F_{1,7} = 1.40$, $P = 0.2751$). Weight of woodchips removed did not vary ($t = -0.89$, $df = 14$, $P = 0.3887$) between poles equipped with the Sonic Dissuader (54.7 ± 21.3 g) and poles equipped with the control device (101.0 ± 47.4 g), but weight of woodchips removed varied considerably by bird. We were also unable to detect a difference among times to departure after the 7 types of calls were emitted by the Sonic Dissuader ($F_{6,8} = 1.14$, $P = 0.4216$). Efficacy of the Sonic Dissuader might be improved by programming to broadcast whenever pecking occurs and by utilizing calls or sounds which have been evaluated for deterring woodpeckers from utility poles.