

ORNITHOLOGICAL LITERATURE

**Seasonal Variation in Acoustic Signals of Pileated Woodpeckers.** Sarah B. Tremain, Kyle A. Swiston, and Daniel J. Mennill. 2008. *The Wilson Journal of Ornithology* 120: 499-504.

When woodpeckers use their beaks to beat rapidly on wood or other surfaces (e.g., a gutter or side of a house) the sound from this “drumming” typically carries over a long distance. Although scientists have long suspected that woodpecker drumming and the other long-distance calls that woodpeckers emit serve some of the same functions as the songs of other birds (e.g., territorial announcement and maintenance, attracting a mate, pair bond maintenance, and individual location), little data have been collected to validate that suspicion. In this paper the authors use a sophisticated system of recording devices to collect “long-range acoustic signals” (drumming and distinct loud vocalizations) of the Pileated Woodpecker (*Dryocopus pileatus*) over a four-month period that includes time during the nonbreeding season and breeding season. If woodpecker drumming and other long distance vocalizations are indeed used for activities seen primarily during the breeding season, then the authors predicted that there should be an increase in the frequency of drumming and other loud acoustic signals at the start of the breeding season.

The research was conducted in a mature bottomland forest along the Choctawhatchee River in the Florida Panhandle. Using seven recording stations and 14 days (two days in January, five days in February, four days in March, and three days in April) of recording data, 98 hours of recordings were sampled. From those recordings, the number of loud drums and three distinct vocalizations (“cackle” call, the “wuk” series call, and the “wok” call) were counted.

Analysis of the sample recordings found significant seasonal variation in all of the long distance acoustic signals. Frequencies remained low in January and February, increased and peaked in March with the onset of breeding, and then returned to winter numbers in April. The decrease of the signaling in late March and April may be attributed to the start of the incubation period when vocalizations could attract predators. The authors conclude that their research supports the hypothesis that drumming and calling in woodpeckers do function like the songs of perching birds.— TMH