

Shorter Contributions

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VOCAL MIMICRY OF BROAD-WINGED HAWK BY BLUE JAY—The Blue Jay (*Cyanocitta cristata*) is a well-known vocal mimic of the Red-shouldered Hawk (*Buteo lineatus*), Red-tailed Hawk (*Buteo jamaicensis*), and several other predatory birds in eastern North America (Atkins, 1987; Hailman, 1990; Phillips, 1993; Tarvin & Woolfenden, 1999). At least five hypotheses have been proposed to explain jay mimicry of raptor vocalizations but unequivocal evidence for a specific function is still lacking (Hailman, 1990; Tarvin & Woolfenden, 1999). Future investigation of this widespread phenomenon will benefit from careful documentation of the geographic and temporal patterns of jay mimicry and raptor distribution.

Here I report the first well-documented account of the Blue Jay mimicking the Broad-winged Hawk (*Buteo platycercus*). On 13 June 2002, I heard what I thought was the whistle call of a Broad-winged Hawk in the forest canopy at my campsite on Big Santeetlah Creek, Graham County, North Carolina (35° 20.7' N, 83° 57.9' W; 840 m above sea level = asl). After a few minutes, I located the source of the call, a pair of Blue Jays that had been frequenting the campsite during the preceding week. This fact was confirmed a few minutes later when the jays flew across a small clearing and one of them gave the “hawk” whistle call several more times. John Gerwin, Rebecca Browning, and I heard jays mimic a Broad-winged Hawk at the same site on

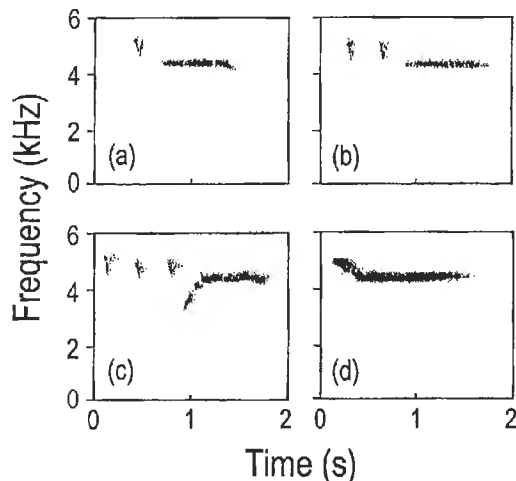


Fig. 1. Audio spectrographs (a-c) of three consecutive whistle-calls of a Blue Jay mimicking a Broad-winged Hawk (Graham County, North Carolina; 17 June 2002), and (d) a whistle-call of a Broad-winged Hawk (Cumberland County, Tennessee; 8 July 2002).

the morning of 15 June, and I tape-recorded a short sequence of similar jay calls there at 0800 h on 17 June (Fig. 1). The behavioral context of the vocal mimicry was unknown in all three cases.

Broad-winged Hawks occur at relatively low densities as a summer resident in the Big Santeetlah Creek watershed (620-1679 m asl), but none was known to be in the immediate vicinity when the jays called. With the exception of single sightings of a Red-tailed Hawk and an unidentified *Accipiter*, this was the only hawk I observed in the Santeetlah Creek watershed (Graves et al., 2002) during 91 days of fieldwork over ten consecutive breeding seasons (9-24 June 1995-2004). This observation suggests that breeding Blue Jays may only mimic raptors that are locally present regardless of previous experience with other raptor species encountered during the non-breeding season.

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