

arately. In the second week of May, the female began to cache raw, shelled peanuts. She took single kernels from the feeder, flew to a nearby crabapple tree, and cached the nut beneath scaling bark (two sites) or in a knothole. Although these areas were her preferred sites, she also used a knothole on another crabapple tree on rare occasions. She returned to the feeder and repeated her caching procedure up to eight times in succession. She occasionally dropped a peanut while attempting to cache it, but was usually successful in her attempt. I wondered if this behavior was an adaptive response to competition from European Starlings, as she often cached until chased from the feeder, then fed on peanuts from her cache. She also cached peanuts at dusk, and then fed on them the following morning, when activity at the feeders was high. During her backyard visits, she intermittently fed directly from the feeder, but ate only one or two peanuts before resuming her caching activity.

The male Hairy Woodpecker fed from the same peanut feeder. Although starlings chased him from the feeder, he never engaged in caching behaviors, nor was he observed feeding from the female's cache. He frequently climbed the trunk of the crabapple tree near the cache sites, but appeared to ignore or not recognize the cache sites. Hairy Woodpeckers are known to infrequently cache food (Burchstead 1987), but it is unknown whether females cache more frequently than males.

According to Kilham (1968), Hairy Woodpecker interactions are subdued while incubating, with the female feeding during the early morning and late afternoon hours, and the male feeding during the day. The male stays on the nest overnight to defend against predators, and the female feeds just before and after her incubation shift (Kilham 1968). My work schedule provided more opportunity to observe the female, and little opportunity to observe the male, during May. The female was

often in the yard before sunrise, and was observed in the late afternoon or early evening, occasionally as late as 7:45 p.m. Two times in May a male and female were seen interacting. The first was an apparent altercation on 23 May. On this date, the female was feeding at 4:30 p.m. when a male appeared and began to

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feed at another feeder. No vocalization occurred until the female saw the male, at which time she erupted in a loud and prolonged sputter-call, and chased the male from the yard. She then returned to the feeder and resumed feeding, but appeared agitated and repeatedly scanned the yard as she fed. Unfortunately, I was unable to confirm the identity of the male, because I did not get a good look at the back of the male woodpecker's head. Hairy Woodpeckers have uniquely marked patterns on the back of their heads, making identification of individual birds possible (Kilham 1960, Eastman 1997). On 28 May, a second interaction occurred; this time it was a confirmed interaction between the bonded pair. The female was feeding at 7:30 p.m. when the male flew directly toward where she was feeding. The male did not feed, but instead attempted to attract the female's attention. He twice circled the tree trunk where she was feeding, and made repeated call notes. The female ignored the male and continued feeding, and after two minutes, the male flew away. The

female continued to feed for 10 more minutes, and then left the yard. Although the meaning of these interactions can't be known for certain, the possibility of a dispute over nest-tending responsibilities is a definite consideration.

I made several attempts to locate the Hairy Woodpecker's nest, but was unsuccessful. The diseased elm tree behind my property was used as a symbolic nest site (Kilham 1968), from which the female drummed and beckoned her mate during their courtship. It was also the tree that both birds flew to upon leaving my backyard. From this tree, the birds flew south along a railroad embankment toward their nest. My search was hampered by the fact that trees were fully leafed out, and mature trees on private property were inaccessible. Females are known to forage within earshot of their young, continually monitoring the area for danger and making frequent visits to the nest, while males forage farther away but return to the nest with larger prey (Kilham 1968). Within their home range of five to thirty-five acres, Hairy Woodpeckers establish a territory between 40-100 feet radius from the nest site, and maintain these ranges and territories from year to year (Eastman 1997). Given these data, it is presumed that the Hairy Woodpeckers nested close to my property.

The Hairy Woodpeckers were quiet in early June 2004. The female was observed carrying food (a raw, shelled peanut) out of the yard on 2 June. The next week, she began to feed on suet, and was seen carrying suet out of the yard on two occasions. Observations of the female ceased between 16 June and 30 June, but sightings of the male increased during this time. On 20 June, the male was observed feeding a single juvenile, with a red patch on the back of its head. The father and its single offspring were observed at the backyard feeders daily until 30 June. The only sightings of the female were on the diseased elm behind my property. Kilham (1968) observed that the division of labor