

indicated that it had been used many times. On inspection I found the accumulations of feces were well mixed with sawdust.

Sapsuckers continue to enlarge the nest cavity after the eggs have hatched, for I have heard males as well as females excavating in nests with young for as long as five minutes at a stretch. The sawdust produced soaks up excreta and appears to facilitate its removal. Another indication of an enlarging process was that a nest collected when the young had just hatched was considerably smaller than one collected at the end of the nesting period when the two nestlings were ready to fly. Early and late measurements of a single nest cavity, however, have not been made.

I began watching Pair C on 14 May 1960. Both male and female were taking turns at excavating the nest hole and each threw repeated billfuls of sawdust from the entrance, and the ground below was well covered. On 20 May the female exhibited a new form of behavior. She had laid her first egg in the morning, but the excavating was continuing as before when she appeared within the entrance with a large billful of fresh sawdust, then flew to a maple trunk 30 feet away, scattered her load, and wiped her bill. She repeated this performance on two other occasions during the afternoon. This early appearance of a behavior pattern characteristic of parents caring for young in the nest suggests that the mechanism for nest sanitation is employed before there is any real need for it. A similar situation among Yellow-shafted Flickers (*Colaptes auratus*) has been described elsewhere (Kilham, 1959. *Wilson Bull.*, 71:323-336).

Flickers have a fecal sac which consists of a tough, white membrane. This sac can be seen clearly when a parent leaves the nest with excreta, and two nestlings which I raised in captivity produced fecal sacs when poked at the cloaca after being fed. Yellow-bellied Sapsuckers, in contrast, do not appear to produce fecal sacs. I never saw any being carried from the nests of the 20 pairs observed, nor were any ever produced by six young sapsuckers which I have raised by hand. The diet of these latter individuals did not include sap. Two of them, however, voided shortly after removal from the nest, one leaving a puddle and the other a wet mash of fecal matter, without enclosing sacs.

However, Wible has written of the Yellow-bellied ("Red-naped") Sapsucker of Montana as having a fecal sac (1960. *Wilson Bull.*, 72:399). It is not clear, however, that she is using the term in the sense that I have used it in regard to flickers, for she stated that the sac she observed was "transparent" and was "eaten by the bird, the fecal contents dropping to the ground." If the fecal matter is picked up with sawdust as I have described, it is difficult to see how it could be enveloped in a fecal sac.—LAWRENCE KILHAM, *Dept. of Microbiology, Dartmouth Medical School, Hanover, N.H.*, 3 February 1961.

Wing-flashing of Graceful Mockingbird while assembling sticks.—Hailman (1960. *Wilson Bull.*, 72:346-357) concludes that foraging is probably the main factor involved of wing-flashing in Mockingbirds. In Surinam I regularly observe the wing-flashing of the Graceful Mockingbird (*Mimus gilvus*) when running on lawns and sand-paths. On 3 February 1960, I observed in my garden a different kind. An adult bird was running on the ground picking up sticks, so I got the impression that it was assembling nest material. When it took a stick in its bill, it dropped it and immediately a "hitch" of wing-flashing followed. The wings were held above the horizontal and the tail was lifted and spread like those of the bird in the upper figure opposite page 341 in *Wilson Bull.* 72. Then the wings and tail were closed and the bird ran a few steps to pick up another stick, dropped it and another hitch followed. This was repeated a few times but I omitted to count how many times.—F. HAVERSCHMIDT, *Paramaribo, Surinam*, 3 February 1961.