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An exceptionally tall Eastern Phoebe nest. — On 8 September 1983 I discovered an unusual nest (VIREO No. V06-2-002) of the Eastern Phoebe (*Sayornis phoebe*) inside a shed in Geauga County, Ohio, 2 km north of Middlefield. The nest was 74 cm tall from base to rim, nearly 10 times the height of a typical Eastern Phoebe nest (Van Tyne 1957). Despite its abnormal height, it was of standard phoebe composition, made of mud, moss, and grass (Harrison 1975) and was attached to a vertical plywood wall above a passageway connecting two rooms of a shed used for maple syrup production. The nest had an air-dried weight of 970 g, and its cup held the mummified remains of one half-grown phoebe nestling. The nest was measured, photographed, and removed from the wall and is now in the nest collection of the Carnegie Museum of Natural History in Pittsburgh, Pennsylvania.

The base of the nest was 2.4 m above the shed's dirt floor, and the rim was 0.4 m below the shed's sloping ceiling brace. According to the owner of the shed, the nest was built entirely during the 1981 nesting season, and it was used each summer through 1983 without noticeable addition of material. Subsequent examination of the nest revealed an unlayered structure apparently built from a single mud source, embedded its entire length with interwoven moss and grass. The nest was only wide enough (13.3 cm) for a cup (7.0 cm) at the top. Harlow (1912) described an Eastern Phoebe nest with 6 distinct stories, and Smith (1905) reported one with 5, measuring 22.5 cm in height. Weeks (1977) described 3 aberrant phoebe nests with greater than normal dimensions, but these did not involve nest height.

Because the Eastern Phoebe is frequently victimized by the Brown-headed Cowbird (*Molothrus ater*) (Klaas 1970) and will sometimes build a new nest on top of an old one in order to cover over cowbirds' eggs (Bendire 1895, Burtch 1898), the nest was x-rayed (using a GE 100 Dental X-ray, Model 11HHS1 at 50 kVp and 10 mA) to determine whether cowbird parasitism caused the aberrantly tall nest. Neither buried eggs nor egg fragments were detected in the x-rays, whereas control eggs placed behind the nest produced strikingly clear images.

The tallest phoebe nest previously reported was 38 cm, and it was also of single-season construction (Van Tyne 1957). Van Tyne (1957) speculated that this example of exaggerated nest-building behavior was caused by the birds' "urge" to have their nest rim close to the overhanging ceiling that was a considerable distance above the shelf giving the nest its initial support. This might also account for the nest I found. In the present instance, the phoebes gained initial nest support by using the only substantial projection on the wall, a metal wire fastened 1.2 m below the overhanging ceiling brace. Perhaps in both instances the birds were torn between opposing preferences. The first of these would be the need to attach the nest to some projection or surface irregularity in order to reduce the risk of nest dislodgement, and the second would be the need to have the rim of the nest as close underneath a protective overhang as possible. Regarding the former preference, both Graber et al. (1974) and Weeks (1979) state that falling nests are a significant mortality factor in the Eastern Phoebe, and Jackson and Burchfield (1975) demonstrated the importance of projections on vertical surfaces as nest-attachment sites in another species of adherent, mud-nest builder, the Barn Swallow (*Hirundo rustica*). Regarding the latter preference, the Eastern Phoebe historically nested along stream banks with rocky outcroppings (among other places) and continues to do so today (Tyler 1942, Weeks 1978). At such relatively exposed sites, any mud nest not placed close beneath some protective overhang would be vulnerable to destruction by rain.

An alternative explanation for the nest might be that the phoebes were responding to an artificially raised substrate level beneath their nest. During early spring sugaring activities, a wagon with a 1-m-high bed was often placed beneath the passageway where this nest was built (E. Byler, pers. comm.). Perhaps, just as the phoebes had begun construction of this

nest, and therefore were strongly attached to the site, the wagon was parked, effectively raising the substrate level beneath their nest by 1m and stimulating them to construct an exceptionally tall nest in order to maintain their preferred nest-cup height, well above the reach of ground-dwelling predators.

If either explanation is correct, what at first appears to be an example of maladaptive nest building, because of the wasted time and energy required to build such an exaggerated nest, might actually be an expression of adaptive behavior.

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