

Nesting Records of the Worm-eating Warbler in Mississippi

By W. H. Turcotte

Introduction:

The worm-eating warbler, Helmitheros vermivorus, is a fairly common spring and fall transient in Mississippi. Collection and sight records at the Mississippi Museum of Natural Science and records in the literature show that spring migration occurs largely in April with extreme dates of occurrence from March 31 (Haberyan, 1962) to May 5. Fall migration records at the Museum and in literature occur from July 31 to October 6 (Burleigh, 1945, p. 110). The breeding range in Mississippi is poorly defined although it has been known to breed locally in Mississippi, Louisiana and Alabama. No breeding records other than sight records of adults feeding young out of the nest have been reported previously. Two nests, found in a ravine in Warren County in May, 1972, are described and one nest photographed with adult female feeding young (Frontispiece) establishes the first known nesting record for Mississippi.

Observations:

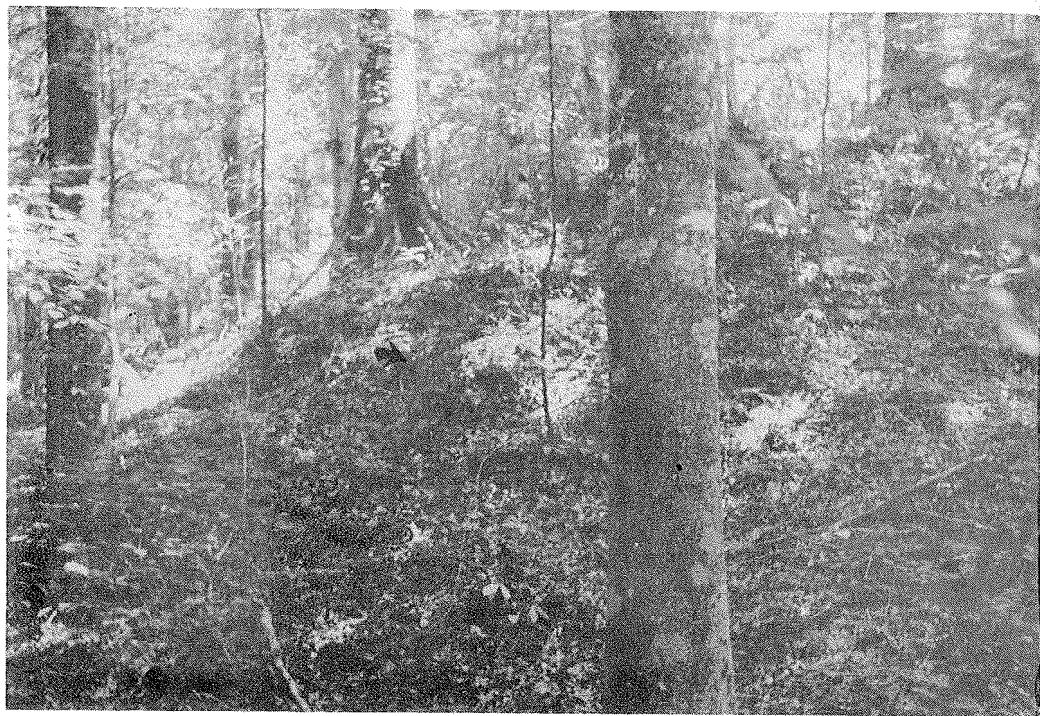
On May 20, 1972, while entering a ravine beside a small intermittent stream at Clear Creek in the loessial hills north of Bovina, Mississippi, I saw a small bird flit by and alight on a sapling at the point of a beech bluff. The accompanying party of Jackson Audubon Chapter members watched as the worm-eating warbler flew to a nest site on the face of the bluff and entered the nest through an opening in dead fronds at the base of a Christmas fern, (Polystichum acrostichoides). After the bird flew away, inspection showed the nest with basal structure of dried and skeletonized leaves completed. On May 25 the nest was examined again with minimum disturbance and the lining had been added.

On this second visit I was accompanied by John H. Phares and Wendell A. Neal. Since the nest contained no eggs, I photographed the nest habitat (Figure 1).

I carried a tape recorder and previously recorded warbler songs intending to call up the Swainson's warbler. Farther up the ravine, near a site where the Swainson's had



Figure 1. Nest habitat of worm-eating warbler on a beech bluff, Bovina Area, Warren County. Location of first nest shown by arrow.



nested twice before, I played the tape which included parts of the worm-eating warbler song. A male worm-eating warbler responded to the recorder playback. John Phares, using binoculars, noted he was carrying food and singing with food in mouth. We watched this bird for several minutes before he flew over the point of a ridge bordering the creek bed. As we walked around the point of this ridge I noticed a similarity of habitat to the first nest site and decided to climb the slope. In doing so I discovered a second nest about midway up the beech bluff with the female brooding.

The site of this second nest was on the north slope of the ravine below the terminus of the ridge top on the west side and covered by large beech trees, (Fagus grandifolia), several yellow poplar, (Liriodendron tulipifera), southern magnolia, (Magnolia grandiflora), and a few cucumber trees, (Magnolia acuminata), along the basal slope and stream bottom (Figure 2). Ground cover about the nest consisted of small cane, (Arundinaria gigantea), small sprouts and saplings, poison ivy, (Rhus radicans), dead limbs and a thick carpet of dead leaves, mostly beech (Figure 3.)

Opposite Page

Figure 2. Habitat of worm-eating warbler with nest containing young, Bovina Area, Warren County. Nest location shown by arrow.

Figure 3. Ground cover at worm-eating warbler nest containing young, Bovina Area, Warren County.

The female remained on the nest while I took photographs from within 5 feet to 16 inches before she flitted down the slope feigning injury. The nest contained four tiny young, naked except for fuzzy, gray down and barely able to extend their necks. A slight touch on the nest triggered feeding response. I examined this nest and later dismantled it. The basal structure was made entirely of compacted, decayed beech leaves arranged clockwise in spiral fashion concealed from above by dead beech twigs, overhanging dead beech leaves and poison ivy. The lining, which also contained some fine dried grass, was composed of the dead reddish brown to blackish terminal rachis and pinnae of the maidenhair fern (Adiantum pedatum). The nest was built in a horizontal plane against the slope supported by dead leaves and other debris in its small niche.

Several minutes after our disturbance ceased, the parent birds returned. Apparently the male went to the nest, fed the young and left. The female more reluctantly returned to the nest and remained on it.

On May 29 and 30, 1972 I returned to try and obtain better photographs since the first ones were under-exposed. The four young and both adults at the second nest were photographed. Both parents brought food consisting of green and brown leaf larvae but only the female braved my presence about 8 feet away. She returned and fed the young at least four times. The male returned to the nest habitat with food but would not approach nearer than five or six feet from the nest, moving about to favorite perches and finally eating the food. The female came more directly to the nest while the male dallied at more distant perches. Both parents made frequent "chip" calls while approaching the nest site. The four young responded to the female's presence when she alighted on dead twigs leaning over the nest by extending open mouths in her direction. Nest cleaning by the female followed each feeding and she remained at the nest long enough to await this chore. She usually flew to or from the nest to a landing on a dead twig or sapling sprout to pause momentarily before feeding young or taking flight to forage for more food.

The first nest of the worm-eating warbler found on May 20 was collected on May 30 and deposited in the Mississippi

Museum of Natural Science. This nest was lined with coarse reddish-brown flower or fruit pedicels of red maple (Acer rubrum) in groups of three arising from a common base. The nest lining contained minute egg shell fragments, indicating this nesting was interrupted by predation.

Occurrence records of the worm-eating warbler in Mississippi during the breeding season are few in number. I have observed and reported two sight records of fledgling young out of the nest from this same area. On May 25, 1963 I saw an adult feeding a fledgling just out of the nest in this same ravine and on May 25, 1968 recorded adults feeding a flying juvenile on the opposite side of the same ravine (MOS Newsletter, Vol. 8, No. 3:15-16 and ibid. Vol. 13, No. 3). Since 1963 I have searched for nests in this area and have on numerous occasions found singing males and feeding birds but no nests. R. M. Freeman recorded in unpublished field notes, WPA Plant and Animal Survey Project, finding two adults feeding three flying young near Woodville, Mississippi, Wilkinson County on August 1, 1939. Freeman also recorded two flying young being fed by an adult on July 14, 1939 near Indian Springs, Jones County. B. A. Bloodsworth recorded another observation of both adults feeding flying young in Wilkinson County on August 2, 1939.

Discussion:

After periodic searching for a nest of the worm-eating warbler during eight seasons without success it is now obvious why the nest is difficult to find. The breeding habitat in the area described above is mature deciduous trees, mostly beech with scattered magnolias along steep slopes strewn with dead leaves, forest debris, and understory of small shrubs, saplings and occasional small stands of cane. Ground cover is rather sparse and consists of poison ivy, Christmas fern, maidenhair fern and small sprouts. The leaf litter around the nest site may be piled in drifts so as to suppress other growths. Overhanging litter and vegetation provides concealment from view above the nest. The slopes where the two nests were located were greater than 45 degrees from horizontal and both nests were about two-thirds the distance up the slope. Both nests were on the north exposure of the slope and bordering an intermittent small stream in a deep ravine heavy with dense understory vegetation except along the bordering bluffs.

The song is a simple trill much like the chipping sparrow, which for me is difficult to hear except at close range. The birds feed in the leafy middle or upper canopy and are difficult to keep in view or course their flight movements. My experience indicates the best way to find the nest is to locate a breeding territory by a singing male and watch for adults carrying food or nest material looking upward from the base of beech-magnolia bluffs, this being the easier way to observe movement of the birds to or from a nest.

Scientific names of plants mentioned in the text are after Radford, A. E., Ahles, H. E., and Bell, C. Ritchie, Manual of the Vascular Flora of the Carolinas, 1964. Thanks are due B. E. Gandy for assistance in duplicating museum records.

Literature Cited

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- Haberyan, H. D., 1962. Gulf Coast Notes. Mississippi Ornithological Society, Newsletter, 7(3).

