

NORTHERN ROUGH-WINGED SWALLOWS EXCAVATING AT HOLES AMONG THE ROOTS OF UPTURNED TREES

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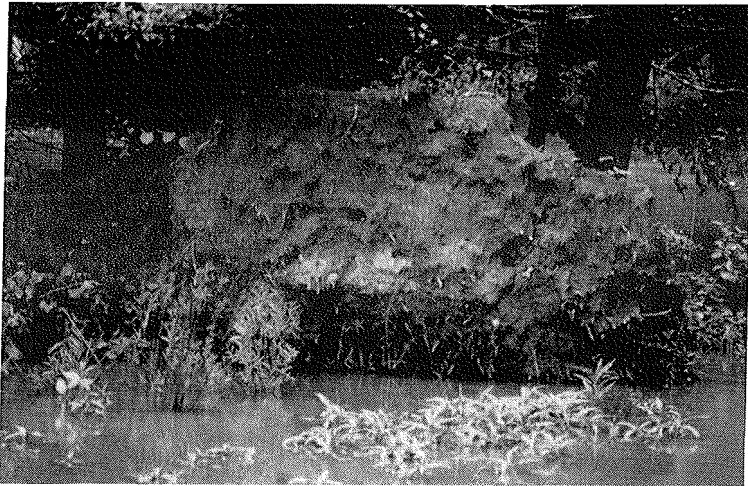
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On 16 and 18 May 1989, I observed Northern Rough-winged Swallows (*Stelgidopteryx serripennis*) excavating at holes in the dirt adhering to the roots of trees that had been blown over at and adjacent to Noxubee National Wildlife Refuge, Oktibbeha County, Mississippi. While rough-wings rarely, if ever, excavate a burrow completely on their own (Gaunt 1963, Lunk 1962), they will readily use or modify existing holes such as old kingfisher burrows or even drainage pipes. The Northern Rough-winged Swallows I observed were entering holes created when large roots broke and pulled out of the adhering dirt as the tree fell. One hole that they investigated was possibly initiated by a Belted Kingfisher (*Ceryle alcyon*). The swallows were persistent in their efforts, deviating from the straight path of their burrow when a root was reached and excavating until their tunnel broke through on the opposite side, approximately, a distance of about 0.4 m. At that point they followed another root hole. Four tunnels were present among the roots of one upturned sweetgum (*Liquidambar styraciflua*) on the refuge. Three were present among the roots of a water oak in a pasture approximately 5 km away. The first site was in a flooded area and the dirt adhering to the roots appeared much as a bank would appear along a stream (Figure 1). The pasture site, however, was not associated with water.

The literature provides varied reports as to the depth of normal Northern Rough-winged Swallow nests. Howe (1900) suggested that nests were usually placed at "arm's depth" -- no doubt learned by egg collecting. Blake 1953:107 measured the depth of two nests as 20 and 28 inches (51 and 71 cm) deep. The most interesting study of the placement of these birds' nests was done by Hill (1988), and involved precise measurement of the depth of nests placed in uniformly long plastic drainage pipes. Hill found that 44 nests averaged 82.4

cm (32.45 in) from the entrance and ranged in depth from 53 to 117 cm (21-46 in). The dirt around the roots of these upturned trees didn't quite reach the minimum depth suggested by these studies. However, it is conceivable that dirt associated with the roots of larger downed trees might have provided nest sites for this species along coastal plain streams in the past.

Figure 1. Windblown sweetgum with root holes enlarged by Northern Rough-winged Swallows.



LITERATURE CITED

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