

FEATURE ARTICLES

SPECIES RICHNESS AND NESTING SUCCESS OF MIGRANT FOREST BIRDS IN NATURAL RIVER CORRIDORS AND ANTHROPOGENIC WOODLANDS IN SOUTHEASTERN SOUTH DAKOTA

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Abstract. Forest fragmentation is thought to be partially responsible for declines in many Neotropical migrant birds due to the combined effects of higher rates of brood parasitism and increased predation near forest edges. A majority of the forested habitat in the northern prairie region is found in riparian corridors, but this native habitat has been much reduced from its historical extent. However, additional woodland nesting habitat has been established within the last century in the form of isolated woodlots on farms. We compared abundance, species richness, and nesting success of migrant forest birds breeding in native riparian corridors and anthropogenic woodlots. The two habitats had similar bird abundances but native riparian woodlands were more species-rich than woodlots. We located a total of 650 nests, with 320 nests of 15 species in woodlots and 331 nests of 25 species in riparian corridors. Nesting success was not significantly different between the two habitats for all species combined or for individual species with ≥ 15 nests in each habitat. Nests above 5 m were more successful than lower nests, but distance to woodland edge did not influence nesting success. Nests initiated in the middle and late portions of the nesting season were more successful than early season nests, significantly so in woodlots. Thus, anthropogenic woodlots were as suitable as natural habitats for successful nesting. However, many of the Neotropical migrants occurring in riparian habitats were absent from woodlots, which suggests that riparian corridors are especially important habitats for breeding birds in the northern prairie region.

Key words: edge effects, forest fragmentation, Neotropical migrant, nesting success, parasitism rates, woodlots.