



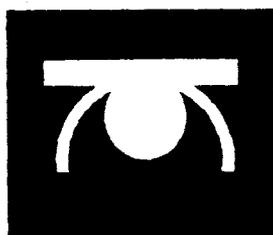
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QUARTERLY PROGRESS REPORT

**Factors affecting nesting success of
shrubland and edge-nesting birds**

Project No.: W-125-R-1

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Illinois Natural History Survey**

1 January - 31 March, 1996

Project Title: Factors affecting the nesting success of shrubland and edge-nesting birds.

Work during this Third Quarterly Report Period focused on Job. Nos. 101.1, 102.1, 102.3, 102.5, 103.1, 104.1, and 104.3.

For Jobs 101.1, 102.1, 103.1 and 104.1, all of which involve selection of study sites, we focused our attention on the Middle Fork Wildlife Area (MFWA) where we will conduct our most intensive study efforts during the next quarterly period.

We have identified the following habitat types for our first year's work:

- (1) **Old fields: forb-dominated early-successional vegetation with little or no woody vegetative cover primarily maintained by mowing.**
 - (2) **Prairie restorations: little bluestem/switch grass restoration grasslands primarily maintained by burning.**
 - (3) **Agricultural fields, including private lands around the MFWA and lease lands within the MFWA.**
 - (4) **Shrublands, which we define as grass/forb fields with scattered taller shrubs and occasional taller (up to 30') trees. These areas are maintained either by mowing or burning.**
 - (5) **Thickets, which we define as primarily closed-canopy, dense stands of shrubs, small trees, and saplings. These areas are too dense to mow and represent a stage of forest regeneration.**
 - (6) **Forest, which includes various ages of oak-dominated ravines and limited upland forest on the ridgetops.**
 - (7) **Narrow corridors of woody vegetation separating open areas, including hedgerows, wooded waterways, and the vegetation along the Middle Fork River.**
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We have also distinguished among (a) gradual edges, which we define as borders between open and woody habitats that have a wide shrubby border, and (b) abrupt edges, which have no shrubby growth along the border of the two habitats. We will be comparing populations and nesting success along abrupt and gradual edges of shrublands, old field/prairie openings, and agricultural openings.

We have selected the following study sites for censusing birds, measuring (using telemetry) movements of predators, and measuring nesting success in 1996, the pre-treatment year in our design.

- (1) Gradual shrubland edges (8)
- (2) Abrupt shrubland edges (8)
- (3) Gradual old-field/prairie edges (8)
- (4) Abrupt old-field/prairie edges (8)
- (5) Gradual agricultural edges (2)
- (6) Abrupt agricultural edges (6)
- (7) Shrublands of varying sizes (8)
- (8) Old fields of varying sizes (8)
- (9) Prairies of varying sizes (8)
- (10) Corridors of varying widths (8)

We are still searching for additional gradual agricultural edges; most are maintained as abrupt edges.

In addition to the MFWA, we will also do some work in the Middle Fork Forest Preserve (Champaign County), Kennekuk Cove and Forest Glen Forest Preserves (Vermilion County), and on land owned by Illinois Power Co. Additional state-wide censuses will be conducted in the areas identified in the previous Report.

To date, all transects have been marked and census points chosen.

For the mammal work (102.3 and 104.3), all hardware and supplies needed for surveys and radiotracking of mammalian nest predators have been acquired. Field technicians (3) to assist with this component of the project have been hired and trained. New track stations (n = 85) specially designed to assess activity of tree squirrels have been built and field-tested. Surgical techniques for implanting transmitters in snakes were learned. Establishment of all transects should be completed and data collection begun in the first week of May.

For the bird work (102.2, 102.4, 103.2, 103.3, 104.2), the field crew has been hired, including the Project Manager, Steve Bailey. The field crew consists of veterans from other avian field studies (Dan Niven, Lonny Morse, Peg Gronemeyer, Stavros Daniels) and will need little training.

Intensive study areas in the MFWA have been chosen in which all of the major habitat/edge types are present.

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