Bobwhite Nesting and Brood Rearing Habitat Use in Response to Habitat Restoration Efforts in Arkansas

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Introduction

A landscape-scale habitat restoration plan was implemented in Arkansas to increase brood rearing and nesting habitat. Our objectives were to:
1. Evaluate habitat used by brood rearing and nesting bobwhites.
2. Determine whether management activities produced habitat favorable for nesting and brood rearing activities.

Methods

We captured bobwhites in two focal areas and monitored them with radio telemetry for nesting and brood rearing activities. We sampled vegetation within a 1 m² frame.

We used a discriminant function to evaluate five habitat classes: nest locations, brood habitat in restored areas, brood habitat in unmanaged areas, randomly selected habitat in restored areas, and randomly selected unmanaged areas.

Results

- Nesting habitat had more grass and litter, less bare ground and forbs and taller vegetation with more overhead cover compared to brood habitat (See photo above).
- Brood rearing habitat had less grass, more forbs and open space at ground level, and more bare ground compared to nesting habitat (See photo above).

Conclusions

- Management practices that produced brood rearing habitat involved fall land clearing or disk stripping, spring burning and then planting of native bunch grasses.
- Management practices that produced nesting habitat received burning only.
- Management tended to produce either brood rearing habitat or nesting habitat but not both. However, nesting habitat increased as managed areas aged.

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