INTRODUCTION

Silvicultural activities change habitats, and habitat changes affect wildlife. A comprehensive system of habitat monitoring already exists (Habitat Monitoring Committee 1990) but, until now, no similar system has been devised for monitoring the effect of different forest management practices on wildlife.

The system described here, developed by wildlife biologist Dr. David Hatler, provides a reconnaissance level of monitoring wildlife occurrence. It differs from usual inventory techniques in that it does not focus on numbers of individuals of any particular species. Rather, it provides occurrence data for a wide variety of animals, and potentially includes the full range of wildlife vertebrates in any particular area. It is especially suitable for comparing two or more areas, such as treated and control sites or different habitat types, or for monitoring changes in one area over time. This can help forest managers assess the effectiveness of different activities in achieving specific Integrated Resource Management goals.

The method described is simple and practical and, with a short instruction period, could be used by technicians or other interested persons who do not have formal biological training. It is not intended to be a replacement for formal research, but results are expected to be useful as indicators of information gaps, and as an aid to directing future research projects.

METHOD

The surveyor walks along a pre-selected transect line, recording all observed indications of wildlife. These include wildlife “sign,” such as tracks, droppings, nests or feeding remains, as well as direct sightings. Observations are identified to species level wherever possible, although the data forms make provision for generic listings such as “unidentified weasel” or “leathers – unidentified bird.”

Data Collection Units

Transects are divided into 10-m segments and data are recorded by segment. This has several advantages:

- Some segments will show the absence of wildlife, which is as important as presence when describing distribution.
- Many small segments mean larger sample sizes.
- Segment results can be conveniently pooled to show productivity or other parameters over larger distances, such as observations per 100 m or per kilometre.
- frequency and local importance – the percentage of total observations attributable to each species or species group.
- productivity – the frequency of occurrence of each species or species group per unit (segment, 100 m, km).
- distribution – locations/habitats in the surveyed area where each species occurred most often. This can be represented graphically (e.g., see Figure 1).

Comparisons between areas or between times can be made using simple presence/absence data or any of the above parameters.

**REFERENCE**


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**FIGURE 1.** Distribution and abundance of records per 100 transect metres.