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IMPORTANCE OF SAMPLING DURATION AND STRIP WIDTH IN USE OF THE FIXED-WIDTH STRIP TRANSECT METHOD FOR ESTIMATION OF BIRD ABUNDANCE AND SPECIES DIVERSITY

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The fixed-width strip transect method is increasingly becoming an important bird sampling technique in Australia. In this survey, different sampling durations and strip widths were evaluated for the sampling of birds in Yellow Box woodland remnants in the ACT.

The survey showed that the choice of sampling duration and strip width had a significant effect on the estimation of bird abundance and species diversity using the fixed-width strip transect method in Yellow Box woodland remnants. Different measures of bird abundance and species diversity were also found to vary in sensitivity with changes in strip width. Use of the logarithm link function to analyse bird counts further demonstrated that the appropriate strip width will depend upon the flocking behaviour of the birds. It is evident from this survey that there is a need for more intensive surveys to develop and validate the fixed-width strip transect method for the sampling of birds in savannah eucalypt woodlands. Until that is done, it is inappropriate to compare results between studies which employ the fixed-width strip transect method, but use different sampling durations and strip widths.