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A COMPARISON OF SPECIES COUNTS AND DENSITY ESTIMATES DERIVED FROM AREA SEARCHES, LINE TRANSECTS AND POINT COUNTS IN THE JARRAH FOREST OF SOUTH-WESTERN AUSTRALIA

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No studies have examined differences between census methods for birds in south-western Australian forests, yet unique features of south-western forests may be responsible for differences from those recorded in studies conducted elsewhere. Differences in the number of bird species recorded and densities estimated by area searches, line transects and point counts in jarrah forests of south-western Australia were examined. All three methods detected a similar number of species but area searches gave higher estimates of overall bird density. This difference probably occurred because area searches were conducted for a longer period of time and detected more cryptic birds in a given area than the other two methods. These results were similar to studies conducted in eucalypt forests in south-eastern Australia and in non-forest habitats in western Australia, suggesting that differences between the three methods are consistent across different habitats and regions in Australia. However, density estimates should not be compared directly between studies using area searches and either line transects or point counts, even if the censuses are conducted for the same length of time.