

Birds were counted with transect, point count and two-hectare search methods at one dry sclerophyll forest site and one subtropical rainforest site in northern New South Wales. Five population density estimators and one reporting rate index were evaluated. True densities were unknown and comparisons focused on variation between methods. Distance sampling line transect and point transect estimates averaged 2.24 and 5.12 times greater than unadjusted strip transect and circular plot densities respectively. Point transects were likely affected by bird movements and densities averaged 2.62 times greater than line transects. Two-hectare search densities were comparable to line transects in dry sclerophyll forest and to strip transects in rainforest. Relative density estimates were more consistent, with strong correlations ($r = 0.71\text{--}0.95$) between all five estimators. Two-hectare search reporting rates correlated strongly with density, although the relationship was curvilinear. Reporting rates confound abundance and occupancy and should be interpreted cautiously. Pilot studies are recommended to test assumptions and expose the strengths and weaknesses of different bird survey methods. Transects were more efficient than point counts and two-hectare searches for estimating relative densities in this study.