

ABSTRACTS FOR CONDOR 104(1) FEBRUARY 2002 C.E.

FEATURE ARTICLES

DEMOGRAPHIC VARIABLES ARE POOR INDICATORS OF WOOD THRUSH PRODUCTIVITY

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Abstract. We tested the ability of 29 indices of productivity to predict and track actual productivity of a Wood Thrush (*Hylocichla mustelina*) population for 21 years and to detect year-to-year changes in that productivity. Of 29 indices tested, only the productivity of nests initiated in May showed promise. This index reasonably predicted productivity, correctly tracked two out of three temporal trends in productivity, and detected a significant proportion of year-to-year changes in actual productivity. Although they were not useful for predicting annual productivity, other indices based on nest data tracked trends in productivity moderately well, and all, except percent nest success, detected a significant proportion of year-to-year changes in productivity. Productivity indices based on non-reproductive variables, such as abundance of males or females, return rates, and veteran:novice ratios, did not reflect productivity trends or changes. From these results, we recommend that only an intensive measure of actual productivity or a partial measure of it, such as May productivity, be used to make inferences about annual productivity of a population. Indices based on other nest data should be used only for tracking productivity trends. Non-reproductive indices are unreliable for making any inferences about productivity.

Key words: *Hylocichla mustelina*, *Neotropical migrant*, *population monitoring*, *productivity*, *Wood Thrush*.

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