

Capture-recapture Type model for Estimating Elusive Events with Tag Loss

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ABSTRACT

In capture-recapture experiments, if individuals loss their tags, the observed recaptures will be smaller than expected. This phenomenon results in overestimation of the population under consideration. Drugs addicts are usually referred for treatment or for rehabilitation, on the process of these, they are likely to change their identity hence losing their tags. Tags loss method was therefore incorporated in the estimation of the size of elusive populations. The simulation studies revealed that the proposed coverage probability tag loss model (CPTLM) is consistent with small and large population sizes. The proposed model was applied to addicts' data collected from North east, Nigeria.

Key words : Capture-recapture, tag-loss, overestimation, drug addicts