

DERIVATION AND PROPERTIES OF THE SIZE-BIASED POISSON JANARDAN DISTRIBUTION

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ABSTRACT

In this paper the size-biased Poisson Janardan distribution (SBPJD) is introduced. The probability distribution of size-biased Poisson Janardan distribution is obtained by considering size-biased form of the Poisson distribution and Janardan distribution without its size-biased form. Some of its basic properties are derived and it is found that size-biased Poisson Lindley distribution given by Srivastava and Adhikari, is a special case of the size-biased Poisson Janardan distribution. The equations of the method of moment and maximum likelihood estimators are obtained to find the estimators of the parameters of the size-biased Poisson Janardan distribution.

KEYWORDS: MLE, MOM, Poisson Distribution, Size-Biased Distribution, SBPJD, SBPLD