



SIZE-BIASED POISSON-PRANAV DISTRIBUTION AND ITS APPLICATIONS

Kamlesh Kumar Shukla¹, Rama Shanker², Manoj Kumar Tiwari^{3a,b,*} and Faisal Ababneh^{4a,c}

¹Department of Mathematics, Jaypee Institute of Information Technology, Noida - 201 304, India

²Department of Statistics, Assam University, Silcher - 788 011, India.

^{3a}Department of Statistics, Sultan Qaboos University, Muscat, Oman.

^{3b}Department of Statistics, Panjab University, Chandigarh - 160 014, India.

^{4a}Department of Statistics, Sultan Qaboos University, Muscat, Oman.

^{4c}Department of Mathematics, Al- Hussain Bin Talal University, Maan, Jordan.

E-mail: m.tiwari@squ.edu.om, mtiwari@pu.ac.in

Abstract: In the present paper, a size-biased Poisson-Pranav distribution has been proposed. Moments and moments based statistical measures including coefficient of variation, skewness, kurtosis and index of dispersion have been obtained and their behaviors explained graphically. The estimation of its parameter has been discussed using method of moment and maximum likelihood estimation. The applications of the proposed distribution have been explained through real datasets relating to migration and thunderstorm events.

Key words: Pranav distribution, Poisson-Pranav distribution, Moments based measures, Estimation of parameter, Thunderstorm events, Applications.

Cite this article

Kamlesh Kumar Shukla, Rama Shanker, Manoj Kumar Tiwari and Faisal Ababneh (2023). Size-biased Poisson-Pranav Distribution and its Applications. *International Journal of Agricultural and Statistical Sciences*. DOI: <https://doi.org/10.59467/IJASS.2023.19.863>