

SAMPLE RESEARCH ABSTRACT

Type: Oral Presentation

Title: The value of aerial photography in the study of bat-human interactions

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Introduction: Assessments of bat-human relations have long been hampered by a lack of suitable methods for accurately observing and recording encounters between bats and humans (Watson & Sonar, 2003). This paper describes the development and validation of a novel technique for measuring bat-human interactions using aerial photography.

Methodology: A sample of 58 Livingstone's Fruit Bats (*Pteropus livingstonii*) living in a large (50 x 30 m.) outdoor flight aviary were observed interacting with zoo visitors using two separate methods. Method 1 involved the use of a tripod-mounted video camera that recorded interactions from a lateral perspective (TMV). Method 2 used a time-lapse digital camera set to record images every 10 secs. while suspended pointing downwards from the roof of the aviary (ADC). The ability of the two methods to accurately record the number, duration and quality of bat-human interactions was compared statistically using SPSS software.

Main Results: Analysis suggests that ADC detects significantly more bat-human interactions than TMV (Unpaired t test, $t = 8.43$, $p < 0.001$), although it is no more effective at recording the duration and quality of these interactions. While much less time-consuming to analyze than TMV recordings, a drawback with the ADC method was the tendency of bats to roost on the camera, thereby obscuring the lens. Future studies will need to consider ways to overcome this problem.

Principal Conclusions and Implications for Field: These findings suggest that aerial time-lapse photography has a valuable role to play in studies of bat-human interactions, especially where the emphasis is on frequency of interactions.

References:

Watson, J. B., & Sonar, A. (2003). *Bats in My Belfry*. Cambridge, MA: Harvard University Press.