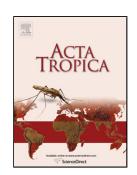
## **Accepted Manuscript**

Title: Sero-epidemiology of bluetongue virus (BTV) infection in sheep and goats of Khyber Pakhtunkhwa province of Pakistan

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## ACCEPTED MANUSCRIPT

Sero-epidemiology of bluetongue virus (BTV) infection in sheep and goats of Khyber Pakhtunkhwa province of Pakistan

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#### **Highlights:**

- This is a first large scale study on sero-prevalence of Blue tongue virus infection in Pakistan.
- The study focuses sheep and goats herds from various distinct regions from KP province.
- Serum samples from the target populations were subjected to c-ELISA for assessment of the sero-prevalence.
- Sheep population was found more affected than goats in the study area.

**Abstract.** Bluetongue virus (BTV) infection is an emerging hazard in small ruminants having socio-economic impacts on animals and associated people. The current study was aimed to estimate the sero-prevalence and associated risk factors in sheep and goat from Khyber Pakhtunkhwa (KP) province of Pakistan. Three distinct zones (northern, central and southern) with four districts (Mansehra, Abbottabad, Swabi, and Kohat) with a higher population of small ruminants were selected. A total of n=408 sera originating from sheep (n=212) and goats (n=196) were randomly collected for detection of BTV group specific antibodies through competitive ELISA (c-ELISA). Univariable and multiple logistic regressions were applied to assess the potential risk factors associated with the occurrence of this disease. Results showed an

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