



**59TH ANNUAL SCIENTIFIC CONFERENCE OF THE
MALAYSIAN SOCIETY OF PARASITOLOGY &
TROPICAL MEDICINE**

**15 - 16 March 2023
The Wembley Hotel, Penang**

Conference Theme

**PLANETARY HEALTH FRAMEWORKS IN TACKLING CHALLENGES
OF VECTOR-BORNE AND TROPICAL DISEASES**

E-ABSTRACT BOOK

Abstract No.: OP32

Seroprevalence of bluetongue virus in ruminants in Al-Batinah governorate, OmanAida Altubi¹, Elshafie I. Elshafie^{1, 2}, Waleed Al Marzooqi¹, Hamzah A. Babiker³, Salama Al-Hamidhi³, Alghalya Al Toobi¹, Haytham Ali^{1*}¹Department of Animal and Veterinary Sciences, College of Agricultural and Marine Sciences, Sultan Qaboos University, Sultanate of Oman²Central Veterinary Research Laboratories, Al Amarat, P.O. Box 8067, Khartoum, Sudan³Department of Biochemistry, College of Medicine and Health Sciences, Sultan Qaboos University, AlKhoud 123, PO Box 35, Muscat, Oman

Bluetongue is a vector-borne viral disease of ruminants and camelid species that is transmitted by *Culicoides* spp. and caused by bluetongue virus (BTV), genus *Orbivirus*, family *Reoviridae*. Sheep are the primary host with apparent clinical signs; however, cattle, goats, and camelids are usually asymptomatic. The disease causes economic losses due to high mortality and morbidity rates, besides international trade restrictions on animals and animal products, hence it is declared as notifiable by the World Organization for Animal Health. This study aims to investigate the seroprevalence of BTV in sheep, goats, and cattle in Al-Batinah Governorate, Oman. A total of 541 serum samples were randomly collected from 219 sheep, 265 goats, and 57 cattle from 5 districts of Al-Batinah Governorate. The serum samples were screened for the presence of BTV specific immunoglobulin antibodies against the BTV VP7 protein using a multi-species commercial competitive enzyme-linked immunosorbent assay. The overall seroprevalence of BTV was 69.3% (375/541) and cattle showed the highest seroprevalence of (94.7%) followed by goats (83.0%) and sheep (53.9%). The seroprevalence was highest in Nakhal (85.5%) followed by Wadi-Almaawil (81.0%), and lowest in Barka (58.9%) districts. Goats and sheep aged one year and more had a higher seroprevalence of (87.5% and 50.8%) compared to younger animals (63.3% and 11.5%), respectively. Overall, females showed a higher seroprevalence of (69.8%) compared to males (67.0%). The study provides an update on the epidemiological status of BTV infection among ruminants in Oman to pave the way for establishing an effective BTV prevention and control strategy.