Contribution ID: **22** Type: **not specified**

Hidden Threat Revealed: First Report of Anaplasma spp. in Goats from Northern Mindanao, Philippines

Monday, October 20, 2025 1:00 PM (4 hours)

Abstract: Goat livestock plays a vital role in the economy by providing milk and meat, while also supporting household nutrition and livelihoods, particularly among the poor and smallholder farmers. Despite their importance, goats are highly susceptible to tick infestations, which not only cause direct harm, such as irritation and anemia, but also facilitate the transmission of tick-borne pathogens like Anaplasma species, the causative agents of anaplasmosis. In the Philippines, molecular studies on Anaplasma infections in goats remain limited and have largely focused on major cities, with no reported detection of Anaplasma directly from goat-associated ticks. To address this gap, this study screened DNA extracted from goat blood using conventional polymerase chain reaction (PCR) targeting the Anaplasma 16S rRNA gene. Of the 30 goat blood samples tested, 3.33% (1/30) were positive for Anaplasma. Phylogenetic analysis revealed a close relationship to A. phagocytophilum, and further genetic comparison showed similarity to the Ap-ha strain, a major variant of A. phagocytophilum that are known to be associated with humans. However, further studies are necessary to confirm its precise identity and to rule out the possibility that it represents a novel or unclassified Anaplasma species. This study provides the first molecular evidence of Anaplasma infection in goats from Northern Mindanao, Philippines, and offers valuable insights into the presence of tick-borne pathogens affecting livestock in the region.

Key Words: anaplasmosis, Ap-ha strain, phylogenetic analysis, tick-borne pathogens, 16S rRNA

Authors: SUNGAG, Al Mario (Department of Biological Sciences, College of Science and Mathematics, Mindanao State University –Iligan Institute of Technology, Iligan City, Lanao del Norte, Philippines); TABELIN, Mylah (Department of Biological Sciences, College of Science and Mathematics, MSU-Iligan Institute of Technology); DAPAR, Kimverly Hazel (Department of Biological Sciences, College of Science and Mathematics, Mindanao State University –Iligan Institute of Technology, Iligan City, Lanao del Norte, Philippines); MONEVA, Carlo Stephen (Department of Biological Sciences, College of Science and Mathematics, Mindanao State University –Iligan Institute of Technology, Iligan City, Lanao del Norte, Philippines)

Presenter: MONEVA, Carlo Stephen (Department of Biological Sciences, College of Science and Mathematics, Mindanao State University –Iligan Institute of Technology, Iligan City, Lanao del Norte, Philippines)

Session Classification: Poster Presentations

Track Classification: Ongoing Projects: Natural Sciences and Mathematics