

Wildlife Veterinary Science: Safeguarding Animal Health and Ecosystem Balance

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Editorial

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Introduction

Wildlife veterinary science is a specialized branch of veterinary medicine dedicated to the health, conservation, and management of wild animals. Unlike traditional veterinary practice, which focuses mainly on domestic animals, this field addresses the complex interactions between wildlife, ecosystems, and human activities. Wildlife veterinarians play a vital role in protecting biodiversity, supporting conservation programs, and maintaining ecological balance while also contributing to public health and environmental sustainability [1].

Discussion

The scope of wildlife veterinary science extends far beyond individual animal treatment. It involves population health management, disease surveillance, habitat assessment, and conservation medicine. Wildlife veterinarians work in diverse settings such as national parks, wildlife reserves, rehabilitation centers, research institutions, and zoological parks. Their responsibilities include diagnosing and managing infectious and non-infectious diseases, performing health assessments, conducting anesthesia and surgical procedures, and overseeing rehabilitation and release programs [2].

One of the major challenges in wildlife veterinary science is the emergence and spread of diseases that can affect wildlife, livestock, and humans. Zoonotic diseases such as rabies, avian influenza, and tuberculosis highlight the importance of monitoring wildlife health as part of a broader One Health approach. Habitat loss, climate change, pollution, and human encroachment further increase stress on wildlife populations, making them more vulnerable to disease and injury. Wildlife veterinarians contribute by conducting field research, developing disease control strategies, and advising policymakers on conservation

and health management [3,4].

Wildlife veterinary science also plays a crucial role in conservation breeding and species recovery programs. Health monitoring of endangered species, genetic management, and reproductive technologies such as artificial insemination help sustain viable populations. Additionally, forensic veterinary science assists in combating wildlife crime by investigating cases of poaching, illegal trade, and animal cruelty, providing scientific evidence to support law enforcement [5].

Conclusion

Wildlife veterinary science is essential for preserving animal health and maintaining ecosystem integrity in an increasingly human-dominated world. By combining clinical expertise, research, and conservation strategies, wildlife veterinarians help protect endangered species, prevent disease transmission, and promote sustainable coexistence between humans and wildlife. As global environmental challenges intensify, the role of wildlife veterinary science will become even more critical in ensuring the long-term survival of wildlife and the health of our planet.

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