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Monitoring of wildlife using unmanned aerial vehicle (UAV) with machine learning
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Abstract

Wildlife monitoring is critical for ecological study, conservation, and wildlife management, but traditional approaches have drawbacks. The combination of unmanned aerial vehicles (UAVs) with machine learning (ML) offers a viable approach to overcoming the limits of traditional wildlife monitoring methods and improving wildlife management and conservation tactics. The combination of UAVs and ML provides efficient and effective solutions for wildlife monitoring. UAVs with high-resolution cameras record airborne footage, while machine learning algorithms automate animal detection, tracking, and behavior analysis. The chapter discusses challenges, limitations, and future directions in using UAVs and ML for wildlife monitoring, addressing regulatory, technical, and ethical considerations, and emphasizing the need for ongoing research and technological advancements. Overall, the integration of UAVs and ML provides a promising solution to overcome the limitations of traditional wildlife monitoring methods and enhance wildlife management and conservation strategies. © 2024, IGI Global. All rights reserved.

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