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## Use of Artificial Intelligence (AI) to Identify New Species in Zoology: A Review

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Abstract: The identification and categorization of a new species continue to be essential zoological endeavors that advance our knowledge of biodiversity and guide efforts to conserve it. Demanding and perhaps constrained by subjective biases, conventional taxonomies mostly depend on morphological evaluation and knowledge from experts. Artificial intelligence (AI) has an opportunity to revolutionize species identification procedures by speeding up and improving them. This paper examines the methods, difficulties, and potential future uses of AI in zoology for the identification and classification of novel species. We highlight machine learning, computer vision, and deep learning methods that use environmentally conscious, genetic, and morphological characteristics to automatically identify species. Zoologists can improve accuracy and efficiency and uncover novel aspects of biodiversity by combining AI with conventional taxonomic methods. This is especially important in view of the rapid changes in the environment

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