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PLANT PROTECTION

FROM CHEMICALS TO BIOLOGICALS

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Requires Authentication | Published by De Gruyter | 2022

Chapter 18 Ecosystem services and ecological role of birds in insect and pest control

From the book [Plant Protection](#)

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<https://doi.org/10.1515/9783110771558-018>

Abstract

Agricultural ornithology is an emerging science that renders great ecosystem services. Most of the bird species play a vital role in agriculture by managing pest and rodent populations. In agricultural countries like India, this field has a special importance in protecting agricultural crops from invading insect pests and, thereby, preventing economic losses to farmers in an ecofriendly manner. In addition, birds aid farmers by reducing invertebrate crop pests, yet they are seldom used in Integrated Pest Management (IPM) practices. Nonetheless, several bird species have a substantial influence on agricultural productivity. To develop practical IPM approaches, it is necessary to understand bird flocking and their behavior at different stages of crops, so that the agricultural yield will be enhanced. Developing strategies on overall aspects help complete essential knowledge gaps around the complex roles of birds in agricultural systems. Although many better works have been started, a lot is yet to be done in order to stabilize the ecological approaches. This book chapter describes the ecosystem services provided by birds and agricultural ornithology advancements, highlights difficulties and information shortages, and suggests future research possibilities.

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