

## A Review on Agricultural Landscapes as a Habitat of Rodents

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**Abstract :** In this paper, we review on rodent species which are common inhabitants of agricultural landscapes where they are an important prey source for a wide variety of avian, reptilian, and mammalian predators. Agricultural fields are surrounded by fallow land, which provide suitable sites for shelter and breeding for rodents, while shrubs, grasses, annual weeds and forbs may provide supplementary food. The assemblage of rodent's fauna in the cropland habitats including cropped fields, meadows and adjacent field structures like hedgerows, woodland and field margins fluctuates seasonally. The mature agricultural crops provides good source of food and shelter to the rodents and these factors along with favorable climatic factors/season facilitate breeding activities of these rodent species. Changes in vegetation height and vegetative cover affect two important aspects of a rodent's life: food and shelter. In addition, during non-crop period vegetation can be important for building nests above or below ground and it provides thermal protection for rodents from heat and cold. The review revealed that rodents form a very diverse group of mammals, ranging from tiny pigmy mice to big capybaras, from arboreal flying squirrels to subterranean mole rats, from opportunistic omnivores (e.g. Norway rats) to specialist feeders (e.g. the North African fat sand rats that feed on a single family of plants only). It is therefore no surprise that some species thrive well under the conditions that are found in agricultural fields. The review on the population dynamics of the rodent species indicated that they are agricultural pests probably due to the heterogeneous landscape and to the high rotativity of vegetable crop cultivation. They also cause damage to various crops, directly and indirectly, by gnawing, spoilage, contamination and hoarding activities, besides this behavior they have also significance importance in agricultural habitat. The burrowing activities of rodents alter the soil properties around their burrows which improve its aeration, infiltration, increase the water holding capacity and thus encourage plant growth. These properties are beneficial for the soil because they affect absorption of phosphorus, absorption zinc, copper, other nutrients and the uptake of water and thus rodents are known as indicator species in agricultural fields. Our review suggests that wide crop field's borders, particularly those contiguous to various cropland fields, should be understood as priority sites for nesting, feeding, and cover for the rodent's fauna. The goal of this review paper is to provide a comprehensive synthesis of understanding regarding rodent habitat and biodiversity in agricultural landscapes.

**Keywords :** agricultural landscapes, food, indicator species, shelter

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