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Chapter

20

Insect biodiversity and their conservation for sustainable ecosystem functioning

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Abstract

Insects are the most species-rich group on the Earth, hence it play numerous crucial roles in ecosystem functioning and the global-economy. The conservation of insect diversity is therefore a topic of global importance. Threats to insect bio-diversity are rapidly increasing day by day. Six interrelated principles are emerging from recent research on the possible thanks to manage the landscape for insect and other bio-diversity conservation. A perfect management strategy is to keep up reserves and promote habitat heterogeneity while softening the disturbed matrix immediately surrounding the reserve. Outside reserves, put aside land for biodiversity and simulate natural conditions and disturbance. Link good-quality habitats with corridors, which has both short-term ecological value and long-term evolutionary value and may be a buffer within the face of worldwide global climate change. Permeating these six landscape principles may be a population-level approach, involving the meta-population trio, which are large habitat size, good patch quality, and reduced patch isolation. Overlying these coarse-filter, landscape principles is that the fine-filter, species approach, which recognizes the requirements of particular species under threat.

Keywords

Insects, Conservation, Diversity, Management strategies, Threats

