

Preface

Environmental resilience is the capacity of an ecosystem to respond to a perturbation or disturbance by resisting damage and subsequently recovering. Such perturbations and disturbances can include stochastic events such as fires, flooding, windstorms, insect population explosions, and human activities such as deforestation, fracking of the ground for oil extraction, pesticide sprayed in soil, and the introduction of exotic plant or animal species. Disturbances of sufficient magnitude or duration can profoundly affect an ecosystem and may force an ecosystem to reach a threshold beyond which a different regime of processes and structures predominates. When such thresholds are associated with a critical or bifurcation point, these regime shifts may also be referred to as critical transitions.¹

In the present book, nine typical literatures about environmental resilience published on international authoritative journals were selected to introduce the worldwide newest progress, which contains reviews or original researches on environmental resilience. We hope this book can demonstrate advances in environmental resilience as well as give references to the researchers, students and other related people.

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¹ https://en.wikipedia.org/wiki/Ecological_resilience