Review: Alien Species and Evolution: The Evolutionary Ecology of Exotic Plants, Animals, Microbes and Interacting Native Species

By G.W.Cox

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George W. Cox. *Alien Species and Evolution: The Evolutionary Ecology of Exotic Plants, Animals, Microbes, and Interacting Native Species*. Washington D.C.: Island Press, 2004. 377 pp. ISBN: 1-55963-009-4. US$ 75 (paperback). Recycled, acid-free paper.

Alien Species and Evolution leads the reader toward an eye penning recognition of the evolutionary potential of alien species. In his extensive work, Cox illustrates that evolution is not just a theoretical controversy about the history of life on earth, but is also occurring here and now. The book starts off with a substantial discussion about invasions and provides the reader with insights on the techniques of genetic analyses. Equipped with this sound background it is easy even for nonspecialists to follow the argumentation in each chapter. The author leads the reader through all aspects of alien invasions, pointing out the significance of evolutionary adaptation in each instance. He raises awareness of the fact that many invasions are sped up and facilitated by human activities; that is, "accelerated evolution" takes place. The book stresses that although ecosystems might be restored through control measures, evolutionary adaptation is usually irreversible. Hence, sustainable means are needed to prevent invasion in the first place if native species are to be preserved. Finally, even the often-neglected subject of the introduction of transgenic organisms and its consequences is treated in detail. The well-chosen examples vividly illustrate the economic and ecological impact of alien invasive species, covering all taxonomic groups from fungi to mammals. Cox is able to show both sides of the story by demonstrating changes in invaders as well as in native organisms and communities.

Although the order of the sections, especially in the introductory part, does not follow a clear structure, the work does not lose its readability. Each part of the book has a summarizing introduction and a short bridging passage, leading the argumentation to the next chapter. The book is written in a comprehensive manner, making it easy to read in only a few hours. After the first perusal, the extensive index makes it a valuable reference book for invasion biologists and interested laypersons.

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