

The presented plant studies are very valuable because plants as well as their response to habitat loss and fragmentation, are usually understudied. The pollination papers show nicely that fragmentation has to consider pollinators (bees and butterflies), too, besides the pollen-mediated gene flow.

The correlation between population size and genetic diversity is clear. This book supports the view that it is increasingly apparent that the consequences of fragmentation are dependent upon complex interactions of demographic and genetic variables. However, the relative importance of demography vs. genetics for conservation of small populations or rare species is still debated. In either case, inbreeding and reproduction failure alone have limited demographic effects. However, when both are combined, and certainly when applying the “precautionary principle” in conservation, the two result in significantly reduced population persistent times. The authors show well that multidisciplinary approaches are crucial but that there is a large degree of discipline rivalry perpetuated by the structure of university faculties and departments and by the patterns of research funding worldwide. DNA

A Primer of Ecological Genetics

By Jeffrey K. Conner and Daniel L. Hartl. Sinauer Associates, Inc., Publishers, 23 Plumtree Road P.O. Box 407, Sunderland, Massachusetts 01375-0407 USA. 304 pages. U.S. \$47.92.

Recent developments in molecular biology have lead to the application of increasingly sophisticated genetic techniques to ecological questions. *A primer of ecological genetics* serves as an introduction to this rapidly expanding field. The intended readers for this book are advanced undergraduate and graduate students who will find it a valuable resource in their studies. The authors also suggest that professional biologists will benefit from the material presented, but I don't think this audience is as well served.

The book starts with the basic concepts of population genetics, including a review of the most commonly used molecular markers. Conner and Hartl then guide the reader through theoretical and empirical advances gained from two complementary approaches to this field. The first is the study of genetic variation in natural populations. Observed levels of genetic variation are routinely used to assess breeding systems, migration, and differentiation within and among populations, making a sound understanding of this material essential for anyone working in conservation biology. The second approach, quantitative genetics, deals with insights gained from experimental studies. While much of the relevant literature addresses breeding programs, the authors argue convincingly for the value of quantitative genetics in studying natural populations.

A detailed discussion of natural selection follows, and the closing chapter of the book covers some of the major applications of population genetics – con-

servations must remain incomplete as long as prey, predation, landscape and other factors get ignored.

Unfortunately, data reported upon in this book are not freely available in a digital format for the public, nor is that fact anywhere in this book emphasized; the important topic of Metadata is not mentioned either. This does not add to transparent decision making in conservation and should be considered in any study.

As this book once more shows very clearly, “currently, we do have tools available to us that we are not using”. If there is something to criticize in this book then: Why do we produce, and focus on, superb science, whereas most of our governments and the public are over 15 years behind in their actions and implications towards efficient conservation? In the meantime, the global landscape will be further exploited, with book shelves getting bigger. This excellent book calls for action: Management considering genetics is required.

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servation genetics, evolution of invasive species, transgene escape, and the evolution of pesticide resistance. This last chapter is an excellent grounding for the book, providing concrete examples of the value of ecological genetics to real world problems.

Overall the book is well thought out, and the authors succeed for the most part in presenting this complex subject in an accessible way. The prominence of quantitative genetics in the text is refreshing. The demands required for quantitative genetic study have limited its use in a conservation context. Conner and Hartl may persuade some researchers to rise to the challenge and combine observational and experimental work. The determined individuals that do will likely produce some very interesting results!

Some of the discussion was over-simplified. The reader gains a general understanding of the concepts, but will need to refer to the primary literature or a more detailed reference to truly master the material. This is the authors intention, as evidenced by the excellent selection of current references included with each chapter, accompanied by discussion questions. In this light, the book will make a marvellous study guide for a graduate seminar or senior undergraduate course. However, professional biologists and conservation managers are less likely to have the time and energy to devote to the subject. Expanding the treatment to make this book a “one-stop” reference would better serve this audience.

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