

Preface

Six years ago, in this very room and in the good company of friends and students, we shared the kernel of an idea. 'Wouldn't it be grand', we mused, 'to write a book that transforms the way that we and others think about the union between evolution and ecology'. So began our personal odyssey toward the *Pillars of Evolution*.

What we call and understand as evolution by natural selection depends only on its three postulates, each of which is a repeatedly verified fact. Wherever those facts apply, so too does adaptive evolution. Life is self-replicating with error. More offspring are produced than can survive. The survival of (future) offspring depends on heritable characters that effect demography.

Thus, the fabric of life, with its interwoven patterns and textures, emerges only through evolution. Biology is a subset of evolution, not the other way around. Our intent is to take this message to senior undergraduates and graduate students while they are developing their worldview. But we also attempt a style and content that makes our book attractive to practising scientists who may be provoked to follow, or challenge, our approach.

We take no credit for the majority of ideas covered in this book. Indeed, they have been shaped and honed over many enjoyable hours contemplating life with friends and colleagues. We have space to name but a few of the most influential and inspiring: Joel Brown, Robert Holt, and Jörgen Ripa. Kelly Morris and Lena Lundberg Magnusson made it possible for us to write with heart, and not just a scientist's impartial mind. The ideas in our little book were improved by the comments from sage and sincere anonymous reviewers, and through the wise counsel of Ian Sherman and Helen Eaton.

We are thankful for the financial support provided to DWM by Canada's Natural Sciences and Engineering Research Council, and to PL by the Swedish Research Council. Most of all, we are grateful for the opportunity to share our ideas and perspectives on a discipline that we consider more important than any other. We believe that our approach to those ideas is somewhat unique, and that it hopefully has some potential to alter the ways that future scientists understand, study, and teach biology. We are saddened that the shortness of human lifetimes will let us see but a tiny fragment of that future. But we are heartened that, because of evolution, we can visualize possible future worlds, and savour, surreptitiously, the ways that our descendants may enjoy them.

Our text begins with 'Imagine...'. Yes, imagine!

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