

Preface

It is not surprising that biologists and philosophers wonder about the nature of species. At first glance we feel assured that we know what we are talking about when it comes to species, but when we take a closer look, matters get more complicated and less obvious. I started my research on species first as a graduate student with Elliott Sober and then as a post-doctorate fellow with David Hull. Both taught me how metaphysics applied to biology can be a satisfying and rewarding form of philosophy.

Shortly after my graduate studies, I started thinking more generally about the nature of species. Instead of worrying about their proper biological description or their ontological status, I started to wonder about their role in evolutionary theory. Experts told me that species are units of evolution. I looked at that notion and found its meaning ambiguous and often vague. Perhaps a better understanding of the distinction between species and other types of taxa (genera, families, and so forth) would help. The deeper I dug, the more problems appeared – the distinctions among those types of taxa were far from clear. Soon it became apparent that the entire Linnaean hierarchy of categorical ranks had dubious theoretical underpinnings. What about the procedures we use for naming taxa, since they stem from Linnaeus's system of classification as well? Again, problems began to surface. The more closely I looked at our current system of classification, the more skeptical I became of its ability to represent the organic world. This book summarizes my investigation of the Linnaean system. It shows why I believe the Linnaean system's days are numbered.

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