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Gorilla Biology
A Multidisciplinary Perspective

Gorillas are one of our closest living relatives, the largest of all living primates, and they teeter on the brink of extinction. These fascinating animals are the focus of this in-depth and comprehensive examination of gorilla biology. *Gorilla Biology* combines recent research in morphology, genetics, and behavioral ecology to reveal the complexity and diversity of gorilla populations. The first two sections focus on morphological and molecular variation and underscore the importance of understanding diverse biological patterns at all levels in testing evolutionary and adaptive hypotheses and elucidating subspecies and species diversification. The following section investigates the influence of ecological variables on gorilla social organization, and highlights the surprising behavioral flexibility of this genus. The book ends with discussions of the conservation status of gorillas and the many and increasing threats to their continued survival. Giving insight into the evolutionary biology of these unique primates, this book will be essential reading for primatologists, anthropologists, and evolutionary biologists.

ANDREA B. TAYLOR is Assistant Professor in the Departments of Community and Family Medicine and Biological Anthropology and Anatomy at Duke University Medical Center. For the past 10 years she has studied the comparative anatomy of the African apes, focusing on the ontogeny of the musculoskeletal system to understand better the developmental and evolutionary basis of functional and adaptive differences in morphology.

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Editors' Dedication

For Michael Siegel,
who made all things possible,
and for my family, Serge, Jordan, and Lauren,
who make all things worthwhile.
Andrea B. Taylor

For my parents, Barbara and George,
through fear and worry, you continue to encourage and support.
For all of your love and guidance,
I thank you.
Michele L. Goldsmith

Authors' Dedication

For the gorillas,
past, present, and future

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Epigraph

When a young naturalist commences the study of a group of organisms quite unknown to him, he is at first much perplexed to determine what differences to consider as specific, and what as varieties; for he knows nothing of the amount and kind of variation to which the group is subject; and this shows, at least, how very generally there is some variation. But if he confine his attention to one class within one country, he will soon make up his mind how to rank most of the doubtful forms. His general tendency will be to make many species, for he will become impressed, just like the pigeon or poultry-fancier before alluded to, with the amount of difference in the forms which he is continually studying; and he has little general knowledge of analogical variation in other groups and in other countries, by which to correct his first impressions. As he extends the range of his observations, he will meet with more cases of difficulty; for he will encounter a greater number of closely-allied forms. But if his observations be widely extended, he will in the end generally be enabled to make up his own mind which to call varieties and which species; but he will succeed in this at the expense of admitting much variation, – and the truth of this admission will often be disputed by other naturalists.

Charles Darwin
On the Origin of Species

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