

Cambridge University Press

0521811074 - Shaping Primate Evolution: Form, Function, and Behavior - Edited by Fred Anapol,

Rebecca Z. German and Nina G. Jablonski

Table of Contents

[More information](#)

Contents

<i>List of contributors</i>	page xii
<i>Preface: shaping primate evolution</i>	xv
FRED ANAPOL, REBECCA Z. GERMAN, AND NINA G. JABLONSKI	
1 Charles Oxnard: an appreciation	1
MATT CARTMILL	
Part I Craniofacial form and variation	
2 The ontogeny of sexual dimorphism: the implications of longitudinal vs. cross-sectional data for studying heterochrony in mammals	11
REBECCA Z. GERMAN	
3 Advances in the analysis of form and pattern: facial growth in African colobines	24
PAUL O' HIGGINS AND RULIANG L. PAN	
4 Cranial variation among the Asian colobines	45
RULIANG L. PAN AND COLIN P. GROVES	
5 Craniometric variation in early <i>Homo</i> compared to modern gorillas: a population-thinking approach	66
JOSEPH M. A. MILLER, GENE H. ALBRECHT, AND BRUCE R. GELVIN	
Part II Organ structure, function, and behavior	
6 Fiber architecture, muscle function, and behavior: gluteal and hamstring muscles of semiterrestrial and arboreal guenons	99
FRED ANAPOL, NAZIMA SHAHNOOR, AND J. PATRICK GRAY	
7 Comparative fiber-type composition and size in the antigravity muscles of primate limbs	134
FRANÇOISE K. JOUFFROY AND MONIQUE F. MÉDINA	

Cambridge University Press

0521811074 - Shaping Primate Evolution: Form, Function, and Behavior - Edited by Fred Anapol,

Rebecca Z. German and Nina G. Jablonski

Table of Contents

[More information](#)

x	<i>Contents</i>	
8	On the nature of morphology: selected canonical variates analyses of the hominoid hindtarsus and their interpretation ROBERT S. KIDD	162
9	Plant mechanics and primate dental adaptations: an overview PETER W. LUCAS	193
10	Convergent evolution in brain “shape” and locomotion in primates WILLEM DE WINTER	206
Part III <i>In vivo</i> organismal verification of functional models		
11	Jaw adductor force and symphyseal fusion WILLIAM L. HYLANDER, CHRISTOPHER J. VINYARD, MATTHEW J. RAVOSA, CALLUM F. ROSS, CHRISTINE E. WALL, AND KIRK R. JOHNSON	229
12	Hind limb drive, hind limb steering? Functional differences between fore and hind limbs in chimpanzee quadrupedalism YU LI, ROBIN HUW CROMPTON, WEIJIE WANG, RUSSELL SAVAGE, AND MICHAEL M. GÜNTHER	258
Part IV Theoretical models in evolutionary morphology		
13	Becoming bipedal: how do theories of bipedalization stand up to anatomical scrutiny? NINA G. JABLONSKI AND GEORGE CHAPLIN	281
14	Modeling human walking as an inverted pendulum of varying length JACK T. STERN, JR., BRIGITTE DEMES, AND D. CASEY KERRIGAN	297
15	Estimating the line of action of posteriorly inclined resultant jaw muscle forces in mammals using a model that minimizes functionally important distances in the skull WALTER STALKER GREAVES	334
Part V Primate diversity and evolution		
16	The evolution of primate ecology: patterns of geography and phylogeny JOHN G. FLEAGLE AND KAYE E. REED	353

Cambridge University Press

0521811074 - Shaping Primate Evolution: Form, Function, and Behavior - Edited by Fred Anapol,

Rebecca Z. German and Nina G. Jablonski

Table of Contents

[More information](#)

<i>Contents</i>	xi
17 Charles Oxnard and the aye-aye: morphometrics, cladistics, and two very special primates COLIN P. GROVES	368
18 From “mathematical dissection of anatomies” to morphometrics: a twenty-first-century appreciation of Charles Oxnard FRED L. BOOKSTEIN AND F. JAMES ROHLF	378
19 Design, level, interface, and complexity: morphometric interpretation revisited CHARLES E. OXNARD	391
20 Postscript and acknowledgments CHARLES E. OXNARD	415
<i>Index</i>	420