# Contents

**Part I  Introduction**

1 The Diversity of Small Apes and the Importance of Population-Level Studies .................................. 3  
   Danielle J. Whittaker and Susan Lappan

**Part II  Biogeography**

2 Evolutionary Relationships Among the Gibbons: A Biogeographic Perspective ............................................. 13  
   Helen J. Chatterjee

3 Genetic Differentiation of Agile Gibbons Between Sumatra and Kalimantan in Indonesia ................................. 37  
   Hirohisa Hirai, Azusa Hayano, Hiroyuki Tanaka, Alan R. Mootnick, Hery Wijayanto, and Dyah Perwitasari-Farajallah

4 Vocal Diversity of Kloss’s Gibbons (*Hylobates Klossii*) in the Mentawai Islands, Indonesia ........................ 51  
   Sally A. Keith, Melissa S. Waller, and Thomas Geissmann

5 Phylogeography of Kloss’s Gibbon (*Hylobates Klossii*) Populations and Implications for Conservation Planning in the Mentawai Islands ........................................... 73  
   Danielle J. Whittaker

6 Individual and Geographical Variability in the Songs of Wild Silvery Gibbons (*Hylobates Moloch*) on Java, Indonesia ........................ 91  
   Robert Dallmann and Thomas Geissmann

7 The Fossil Record of Gibbons ........................................... 111  
   Nina G. Jablonski and George Chaplin
### Part III  Diet and Community Ecology

8 **Hylobatid Diets Revisited: The Importance of Body Mass, Fruit Availability, and Interspecific Competition.** .......................................................... 133  
Alice A. Elder

9 **Competition and Niche Overlap Between Gibbons (Hylobates albibarbis) and Other Frugivorous Vertebrates in Gunung Palung National Park, West Kalimantan, Indonesia.** .......................................................... 161  
Andrew J. Marshall, Charles H. Cannon, and Mark Leighton

10 **The Seed Dispersal Niche of Gibbons in Bornean Dipterocarp Forests.** .......................................................... 189  
Kim R. McConkey

### Part IV  The Relationship Between Ecology and Social Organization

11 **Ecology and the Social System of Gibbons.** .......................................................... 211  
Warren Y. Brockelman

12 **The Ecology and Evolution of Hylobatid Communities: Causal and Contextual Factors Underlying Inter- and Intraspecific Variation.** .......................................................... 241  
Nicholas Malone and Agustin Fuentes

13 **Seasonal Home Range Use and Defendability in White-Handed Gibbons (Hylobates lar) in Khao Yai National Park, Thailand.** .......................................................... 265  
Thad Q. Bartlett

### Part V  Mating Systems and Reproduction

14 **Monogamy in Mammals: Expanding the Perspective on Hylobatid Mating Systems.** .......................................................... 279  
Luca Morino

15 **Monitoring Female Reproductive Status in White-Handed Gibbons (Hylobates lar) Using Fecal Hormone Analysis and Patterns of Genital Skin Swellings.** .......................................................... 313  
Claudia Barelli and Michael Heistermann

16 **Patterns of Infant Care in Wild Siamangs (Symphalangus syndactylus) in Southern Sumatra.** .......................................................... 327  
Susan Lappan
Ulrich H. Reichard

Part VI Conservation Biology

18 Status and Conservation of Yellow-Cheeked Crested Gibbons (Nomascus gabriellae) in the Seima Biodiversity Conservation Area, Mondulkiri Province, Cambodia ................................. 387
Benjamin Miles Rawson, Tom Clements, and Nut Meng Hor

19 The Distribution and Abundance of Hoolock Gibbons in India ...... 409
Jayanta Das, Jihosuo Biswas, Parimal C. Bhattacherjee, and S.M. Mohnot

20 Census of Eastern Hoolock Gibbons (Hoolock leuconedys) in Mahamyaing Wildlife Sanctuary, Sagaing Division, Myanmar ...... 435
Warren Y. Brockelman, Hla Naing, Chit Saw, Aung Moe, Zaw Linn, Thu Kyaw Moe, and Zaw Win

21 The Population Distribution and Abundance of Siamangs (Symphalangus syndactylus) and Agile Gibbons (Hylobates agilis) in West Central Sumatra, Indonesia .............................. 453
Achmad Yanuar

22 Canopy Bridges: An Effective Conservation Tactic for Supporting Gibbon Populations in Forest Fragments ............................. 467
Jayanta Das, Jihosuo Biswas, Parimal C. Bhattacherjee, and S.S. Rao

23 The Role of Reintroduction in Gibbon Conservation: Opportunities and Challenges .................................................. 477
Susan M. Cheyne

24 Saving the Small Apes: Conservation Assessment of Gibbon Species at the 2006 Asian Primate Red List Workshop .......................... 497
Danielle J. Whittaker

Index ..................................................... 501
The Gibbons
New Perspectives on Small Ape Socioecology and Population Biology
Lappan, S.; Whittaker, D. (Eds.)
2009, XVIII, 526 p. 87 illus., Hardcover