TABLE OF CONTENTS – Wild Mammals in Captivity: Principles and Techniques for Zoo Management, 2nd Edition

Foreword George Rabb

Preface Devra G. Kleiman

Acknowledgments

Part One Ethics and Animal Welfare Standards

Introduction

Devra G. Kleiman

- 1. Ethics of Keeping Mammals in Zoos and Aquariums *Michael D. Kreger and Michael Hutchins*
- 2. Challenges of Zoo Animal Welfare Ron Kagan and Jake Veasey
- 3. Setting Standards for Evaluation of Captive Facilities

 Joseph Barber, Denny Lewis, Govindasamy Agoramoorthy, and Miranda F.

 Stevenson

Part Two
Basic Mammal Management

Introduction

Devra G. Kleiman

4. Physical Methods of Capture, Handling, and Restraint of Mammals Joe Christman

- 5. A Framework for Introduction and Socialization Processes for Mammals David M. Powell
- 6. Principles of and Research on Environmental Enrichment for Mammals David Shepherdson
- 7. Impact of Emerging and Zoonotic Diseases on Mammal Management Dominic Travis and Robyn Barbiers
- 8. Safety Considerations in a Zoological Park Mark Rosenthal and William Xanten

Part Three Nutrition

Introduction
Charlotte Kirk Baer

- 9. Contemporary Topics in Wild Mammal Nutrition Charlotte Kirk Baer, Duane E. Ullrey, Michael L. Schlegel, Govindasamy Agoramoorthy, and David J. Baer
- 10. Quality Control Aspects of Feeding Wild Mammals in Captivity Barbara Henry, Michael Maslanka, and Kerri A. Slifka

Part Four Exhibitry

Introduction
Devra G. Kleiman

- 11. The History and Principles of Zoo Exhibition David Hancocks
- 12. Visitors, Conservation Learning, and the Design of Zoo and Aquarium Experiences Emily Routman, Jackie Ogden, and Keith Winsten

- 13. Managing Captive Mammals in Mixed-Species Communities *Jake Veasey and Gabriele Hammer*
- 14. Structural and Keeper Considerations in Exhibit Design *Mark Rosenthal and William A. Xanten*
- 15. How to Develop a Zoo-Based Environmental Enrichment Program: Incorporating Environmental Enrichment into Exhibits

 Cynthia Fernandes Cipreste, Cristiano Schetini De Azevedo, and Robert John Young
- 16. Special Considerations for the Maintenance of Marine Mammals in Captivity *Brian Joseph and James Antrim*
- 17. Zoological Horticulture

 Merle Moore and Don Peterkin
- 18. New and Sustainable Directions in Zoo Exhibit Design Jon Coe and Greg Dykstra

Part Five Conservation and Research

Introduction

Devra G. Kleiman

- 19. Demographic and Genetic Management of Captive Populations Jonathan D. Ballou, Caroline Lees, Lisa J. Faust, Sarah Long, Colleen Lynch, Laurie Bingaman Lackey, and Thomas J. Foose
- 20. Regional Collection Planning for Mammals
 Ruth Allard, Kevin Willis, Caroline Lees, Brandie Smith, and Bart Hiddinga
- 21. Management of "Surplus" Animals Scott Carter and Ron Kagan
- 22. The Role of Captive Populations in Reintroduction Programs *Joanne M. Earnhardt*

23. The Role of Zoos in Contributing to In Situ Conservation *Alexandra Zimmermann*

24. Research Trends in Zoos

Terry L. Maple and Meredith J. Bashaw

Part Six Behavior

Introduction Katerina V. Thompson

25. The Importance of Maintaining Natural Behaviors in Captive Mammals *M. Elsbeth Mcphee and Kathy Carlstead*

26. Animal Learning and Husbandry Training for Management Jill Mellen and Marty Sevenich Macphee

27. Applying Knowledge of Mammalian Social Organization, Mating Systems, and Communication to Management Ronald R. Swaisgood and Bruce A. Schulte

28. The Management of Pregnancy and Parturition in Captive Mammals *Patrick Thomas, Cheryl S. Asa, and Michael Hutchins*

29. Parental Care and Behavioral Development in Captive Mammals *Katerina V. Thompson, Andrew J. Baker, and Anne M. Baker*

30. Data Collection in the Zoo Setting, Emphasizing Behavior Carolyn M. Crockett and Renee R. Ha

Part Seven Reproduction

Introduction

Devra G. Kleiman

31. Reproductive Physiology *Cheryl S. Asa*

32. Male Reproduction: Assessment, Management, Assisted Breeding, and Fertility Control

Rebecca E. Spindler and David E. Wildt

33. Endocrine Monitoring of Reproduction and Stress *Keith Hodges, Janine Brown, and Michael Heistermann*

34. Contraception as a Management Tool for Controlling Surplus Animals Cheryl S. Asa and Ingrid J. Porton

Appendixes

Introduction

Devra G. Kleiman

Appendix 1: Standard Methods for Measuring Mammals Barbara Lundrigan

Appendix 2: Identification and Marking Techniques Penny Kalk and Clifford G. Rice

Appendix 3: Records, Studbooks, Regional Zoo Associations, and ISIS Laurie Bingaman Lackey

Appendix 4: Annotated Bibliography of Books, Journals, and Web Sites on Captive Management

Kay Kenyon Barboza and Linda L. Coates

List of Contributors Author Index Subject Index Taxonomic Index.