

Raptor Biomedicine III

including
Bibliography of Diseases of Birds of Prey



Edited by

J.T. Lumeij, J. David Remple, Patrick T. Redig, Michael Lierz, John E. Cooper



RAPTOR BIOMEDICINE III is the highly acclaimed and anticipated Proceedings of the Third International Raptor Biomedical Symposium, which was held in August, 1998 in South Africa. It continues the tradition of these conferences, held once every decade, of providing the most up-to-date knowledge in this specialized field.

This extraordinary reference successfully blends wildlife biology, the age-old art of falconry and the veterinary specialty of avian medicine and surgery. Anyone dealing with the care of captive raptors or the conservation of free-ranging birds of prey will find this book to be an essential resource.

sponsored by



ISBN: 0-9636996-1-X

Raptor Biomedicine III

including

Bibliography of Diseases of Birds of Prey

Edited by

J.T. LUMEIJ

J. DAVID REMPLE

PATRICK T. REDIG

MICHAEL LIERZ

JOHN E. COOPER



ZOOLOGICAL EDUCATION NETWORK

Contents

Preface	ix
List of Addresses of Contributors and Peer Reviewers	x
Acknowledgement	xvii
Falconry, Falcon Medicine and Conservation in the United Arab Emirates	xix
Foreword by Tom J. Cade	xxxi
Introduction by J.T. Lumeij	xxxiii

PART I. MICROBIOLOGY

1. Newcastle Disease (Avian PMV-1) Viruses in Raptors <i>R.J. Manvell, U. Wernery, D.J. Alexander, and K.M. Frost</i>	3
2. Herpesvirus Infections in Raptors <i>R.E. Gough, Ilaria Capua, and U.Wernery</i>	9
3. Considerations on the Production of a Safe and Efficacious Falcon Herpesvirus Vaccine <i>J. David Remple</i>	13
4. Detection of <i>Mycoplasma</i> spp. in Raptorial Birds in Germany <i>M. Lierz, R. Schmidt, T. Goebel, J. Ehrlein, and M. Runge</i>	25
5. Clostridium Enterotoxaemia in Falconiformes in the United Arab Emirates <i>U. Wernery, J. Kinne, A. Sharma, H.Boehnel, and J.H. Samour</i>	35

PART II. PARASITOLOGY

6. Trichomoniasis in Bonelli's Eagle (<i>Hieraetus fasciatus</i>) Nestlings in South-West Portugal <i>U. Hoefle, J.M. Blanco, L. Palma, and P. Melo</i>	45
7. <i>Trichomonas</i> sp. and Falcon Health in the United Arab Emirates <i>Theresa C. Bailey, Jaime H. Samour, Tom A. Bailey, J. David Remple, and Cheryl J. Remple</i>	53
8. Trichomoniasis in American Kestrels (<i>Falco sparverius</i>) and Eastern Screech-Owls (<i>Otus asio</i>) <i>Sigrid Noll Ueblacker</i>	59
9. Endoparasites of Raptors — A Review and an Update <i>David Lacina and David M. Bird</i>	65
10. Endoparasites in Free-Ranging Birds of Prey in Germany <i>O. Krone</i>	101
11. Parasitological Findings in Captive Falcons in the United Arab Emirates <i>Jaime H. Samour and C. Silvanose</i>	117

PART III. PATHOLOGY AND POISONING

12. Neoplasms of Birds of Prey <i>Neil A. Forbes, John E. Cooper, and Robert J. Higgins</i>	127
13. The Pathology and Diseases of the Mauritius Kestrel (<i>Falco punctatus</i>) <i>Christopher J. Dutton, John E. Cooper, and Anthony F. Alchurch</i>	147
14. Diseases and Mortality Causes in Captive and Free-Ranging Bearded Vultures (<i>Gypaetus barbatus</i>) <i>Alexandra Scope and Hans Frey</i>	157
15. Lead Poisoning in Endangered Sea-eagles (<i>Haliaeetus albicilla</i> , <i>Haliaeetus pelagicus</i>) in Eastern Hokkaido through Ingestion of Shot Sika Deer (<i>Cervus nipon</i>) <i>Keisuke Saito, Nobumichi Kurosawa, and Ryohji Shimura</i>	163

PART IV. MEDICINE AND SURGERY

16. Pathophysiology, Diagnosis and Treatment of Renal Disorders in Birds of Prey <i>J.T. Lumeij</i>	169
17. Disorders of the Posterior Eye Segment in Raptors — Examination Procedures and Findings <i>R.T. Korbel</i>	179
18. Osteological Aspects of the Falcon Wing <i>Paolo Zucca and John E. Cooper</i>	195
19. Tendon Repair in the Pelvic Limb of Birds of Prey: Part I. Anatomical Considerations <i>Nigel H. Harcourt-Brown</i>	201
20. Tendon Repair in the Pelvic Limb of Birds of Prey: Part II. Surgical Techniques <i>Nigel H. Harcourt-Brown</i>	217
21. The Use of an External Skeletal Fixator-Intramedullary Pin Tie-In (ESF-IM Fixator) for Treatment of Longbone Fractures in Raptors <i>Patrick T. Redig</i>	239
22. Antibiotic-impregnated Polymethyl Methacrylate Beads in the Treatment of Bumblefoot in Raptors <i>J. David Remple and Neil A. Forbes</i>	255

PART V. VETERINARY MANAGEMENT AND CAPTIVE BREEDING

23. Veterinary Considerations During the Hunting Trip <i>Jaime H. Samour</i>	267
24. Reconciling Conservation Interests with Health and Medical Issues of the Laggar Falcon (<i>Falco jugger</i>) in Pakistan <i>Tom A. Bailey, N.C. Fox, A. Mukhtar, A. Toosi, and Jaime H. Samour</i>	275
25. Aspects of Management within the European Bearded Vulture (<i>Gypaetus barbatus</i>) Reintroduction Project (FZS 832/78, WWF 1657/78) <i>Hans Frey and Richard Zink</i>	281
26. Molecular Sex Determination in Spanish Imperial Eagle (<i>Aquila adalberti</i>) Nestlings and Sex Related Variation in Morphometric Parameters <i>Ursula Hoefle, J.M. Blanco, H. Sauer-Guerth, and M. Wink</i>	289

27. Immobilisation of the Eurasian Buzzard (<i>Buteo buteo</i>) with Oral Tiletamine/Zolazepam Wolfgang Zenker, Martin Janovsky, Johanna Kurzweil, and Thomas Ruf	295
--	-----

PART VI. REHABILITATION AND TELEMETRY

28. Rehabilitation of Birds of Prey and Their Survival after Release. A Review Davide Csermely	303
29. Intraabdominal Implantation of a Multi-sensor Telemetry System in a Free-Ranging Eurasian Griffon (<i>Gyps fulvus</i>) C. Walzer, R. Boegel, G. Fluch, E. Karl, F. Schober, and R. Prinzing	313
30. Fitness Level as a Determining Factor in the Survival of Rehabilitated Raptors Released Back into the Wild — Preliminary Results Peter Holz and Richard Naisbitt	321
31. Assessing Rehabilitation Success of Raptors through Band Returns Mark S. Martell, Jane Goggin, and Patrick T. Redig	327

PART VII. RESOLUTION

32. Legal Considerations in the International Movement of Diagnostic and Research Samples from Raptors — A Conference Resolution Margaret E. Cooper	337
---	-----

PART VIII. BIBLIOGRAPHY

33. Diseases of Birds of Prey: A Partially Annotated Bibliography J. Poffers and J.T. Lumeij	347
---	-----

Appendices

Appendix 1. Scientific Names and Common Names for Birds of Prey Mentioned in Text (Scientific Names in Alphabetical Order)	455
Appendix 2. Common Names and Scientific Names for Birds of Prey Mentioned in Text (Common Names in Alphabetical Order)	457
Appendix 3. Instructions for Using the RapSearch Database	459

Index	463
--------------------	-----