



Elephant Care International (ECI)

What We Do

Hank Hammatt
Executive Director

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ECI - What We Do

- Projects in the U.S., Asia, Africa
- Work with captive and wild elephants
- Elephant healthcare and conservation
- Provide information & financial resources for professionals



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ECI Mission

“To foster and deliver healthcare for elephants and promote the harmony and well-being of humans and elephants where they share natural environments.”



Sri Lanka

ECI Goals

- Support direct healthcare
- Further our knowledge of diseases.
- Facilitate cooperation, collaboration & communication
- Implement community-based solutions for HEC
- Inspire broader conservation issues.





ECI Projects

- Elephant Tuberculosis Initiative
– Nepal / India
- Africa: Alternative to Culling
- Sri Lanka: Community-Based Conservation
- Elephant Publications
- Resources for Elephant Professionals
- Sumatran Elephant Healthcare & Conservation





Elephant Tuberculosis Initiative

- Validate diagnostic techniques
- Improve treatment methods
- Establish a surveillance system and database
- Goal: Survey Asian elephant range countries by 2015



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Nepal TB Project

- Examined 120 elephants
- Validated new serological tests
- Assessment and treatment plan
- Permanent healthcare program



Nepal



India TB Project

- 800 elephants - largest elephant healthcare project ever
- Test for TB and other diseases
- All India veterinarian team under supervision by R. Sukumar PhD
- Technical support by ECI
- Funded by ECI, with support in India by CUPA & WSPA



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Africa - Alternative to Culling

U. Bechert, M. Fraker, G. Kerley

- Overabundance of African elephants
- Alternative vs. culling, starvation, habitat loss
- Long lasting single dose contraceptive
- Years of testing req'd.



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Botswana, © Scotch Macaskill used with permission



Sri Lanka Project

- Community–based conservation
- Alternative crops in corridors of high HEC
- Partnership with Sri Lanka Wildlife Conservation Society




Elephant Publications

- **Elephant Biology, Medicine, and Surgery**, the first modern elephant care text book
- **Sumatran Elephants in Crisis—Time for Change**, S. Mikota, H. Hammatt, and Y. Fahrimal, a book chapter in *Elephants and Ethics* (in press)
- **Many journal articles**

Murray E. Fowler and Susan K. Mikota

Biology, Medicine and Surgery of Elephants



 Blackwell
Publishing



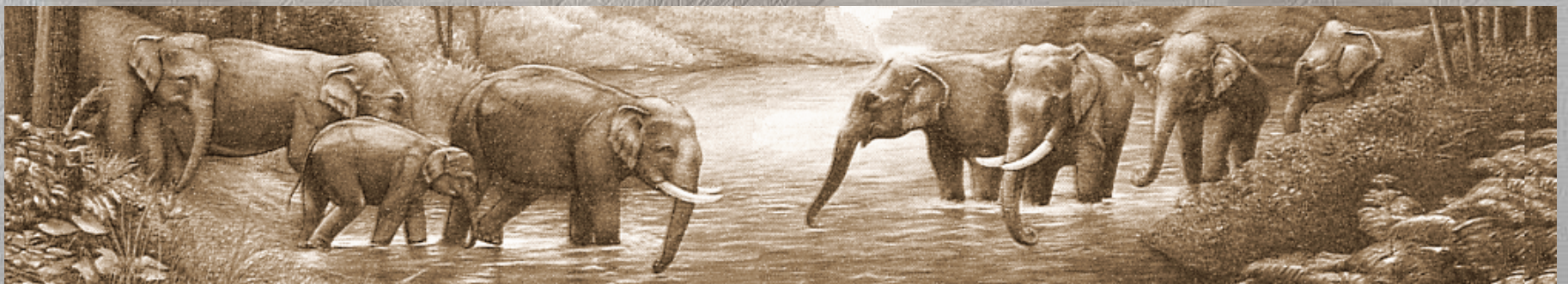
Our website

Elephant Care International		
<p><i>Dedicated to the Healthcare & Conservation of Elephants</i></p>	<p>Tuberculosis Helped Bring Down Mastodons</p> <p>Why should you donate today...</p> <p>...to stop the spread of tuberculosis from humans to captive elephants before they infect wild populations - where detection and treatment may be impossible. The need is urgent. We can make a difference, but we must act now. You can help!</p>	<p><i>Facilitating the Sharing of Elephant Data among Professionals</i></p>
<p>First-time users: please access sub-headings via underlined links for a more logical flow.</p>		<p>What's New:</p> <p>Disease Fact Sheets</p> <p>Nepal TB Research update</p> <p>Buddhism & Elephants...</p> <p>Alternative to Culling - new brochure</p>
<p><u>Who We Are</u></p> <p><u>What We Do</u></p> <p><u>What You Can Do!</u></p> <p><u>Professional Content</u></p> <ul style="list-style-type: none">Bulletin BoardElephant Bibliographic DatabaseElephant FormularyProtocols, Manuals, Standards <p><u>General Information</u></p> <ul style="list-style-type: none">Conservation & ConflictImage GalleryLinks <p><u>Contact Us</u></p> <p><u>Sitemap</u></p>		<p>Biology, Medicine, and Surgery of Elephants</p>
<p>Elephant Controversies:</p> <p>Position Statement</p>		<p>Funded in part by a Guggenheim Fellowship and by the Alexander Abraham Foundation</p> <p>Additional Supporters</p>
<p><i>Elephant Care International Conservation Campaign. Simple, cost-saving ideas that protect nature & save elephants!</i></p> <p>Learn more...</p>		
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Website Professional Content

- Elephant Healthcare Database
- The Elephant Formulary
- Bulletin Board
- Vital Signs and Physiological Values for Elephants
- Elephant Protocols, Manuals, & Standards
- Disease Fact Sheets
- Pharmacies





Elephant Healthcare Database

Anatomy & Physiology
Anesthesia & Restraint
Behavior, Training &
Enrichment
Captive Management
Cardiovascular
Conservation & Ecology
Culture, History, &
Evolution
Dental & Tusk
Diagnostic Techniques
Diseases, Bacterial
Diseases, Viral
Diseases, other infectious
Diseases, non-infectious &
unknown etiology

Endocrinology
Gastrointestinal
Genetics
Hematology, Serum
Chemistry / Normal Values
Immune System
Integument
Laws, Regulations, &
Guidelines
Medicine, General
Musculoskeletal
Neonatal & Hand-rearing
Zoonoses & Human Injury

Neoplasia
Nervous System
Nutrition
Parasitism
Pathology
Pharmacology
Renal & Urinary
Reproduction
Respiratory
Special Senses &
Chemical Communication
Surgery
Treatment Techniques
Welfare
Zoonoses & Human Injury

Elephant Formulary

- Drug Monographs Index
- Ophthalmic Products
- Medication Techniques
- Compounding Pharmacies





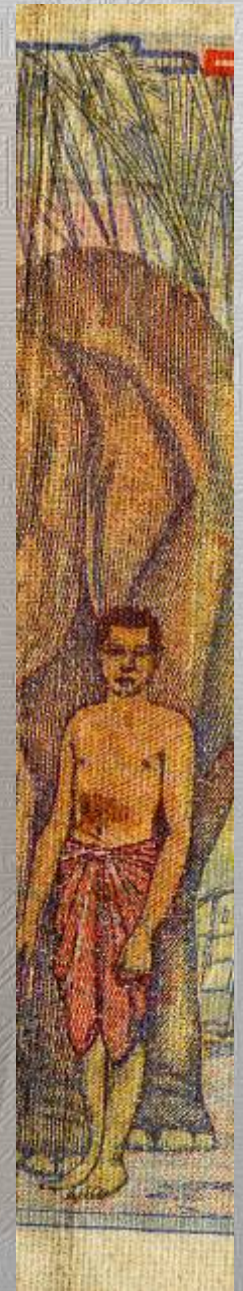
Elephant Formulary

- Tables of Parenteral Fluids
- Abbreviations Used In Prescription Writing
- Solubility Definitions
- Conversion Tables
- Millequivalents & Molecular Weights
- Conversion of Conventional Chemistry Units to SI Units
- Simple Formula for Diluting Solutions
- Monographs sorted by therapeutic class / indication
- Bibliography for original Plumb work
- References for original Plumb work

Elephant Formulary

Drug Monographs A-Z

- Acepromazine Maleate *
- Acetazolamide
- Acetic Acid
- Albendazole
- Albuterol Sulfate
- Altrenogest
- Amikacin Sulfate
- Tylosin
- Vitamin E/Selenium
- Warfarin Sodium
- Xylazine HCl *
- Yohimbine HCl
- Zinc
- Zuclopenthixol





Protocols, Manuals, and Standards

Scientific Topics (some overlap between categories - check Management Topics also)

[**Elephas Maximus - Asiatic Elephant - Weights & Physiological Reference Ranges**](#) (International Species Information System - ISIS)

[**Loxodonta africana - African Elephant Weights & Physiological Reference Ranges**](#) (International Species Information System - ISIS)

[**Guidelines for the Control of Tuberculosis in Elephants 2003**](#) (National Tuberculosis Working Group for Zoo and Wildlife Species)

[**Veterinary Guidelines for Reproduction-Related Management in Captive Female Elephants**](#) (EAZA TAG - Europe)

Special Note: *The above birth protocol is a work-in-progress. There is much to be learned and the authors request that readers give feedback to the authors as to their experiences so that improvements in the protocol can be made. Please send comments or questions to Willem Schaftenaar <w.schaftenaar@rotterdamzoo.nl>*"

[**Summary - Elephant Tuberculosis Research Workshop May 2005**](#)

[**Instructions for Elephant Endotheliotropic Herpesvirus \(EEHV\) Sample Submission**](#) (AZA - U.S.)

[**Recommendations for EEHV \(Herpes Virus\) Testing and Transport of Elephants 2002**](#) (AZA - U.S.)

[**West Nile Virus Update in Elephants**](#) (USA)

[**Elephant Vital Signs and Physiological Parameters**](#) (compiled by Susan Mikota DVM 2006)

[**Elephant Necropsy Protocol 2005**](#) (AZA - U.S.)

[**Elephant Serum Bank Submission Form**](#) (AZA - U.S.)

[**Post-mortem Procedures for Wildlife Veterinarians and Field Biologists**](#) (African Elephants)

(Published jointly by the Office International des Epizooties, Care for the Wild and the Veterinary Specialist Group/Species Survival Commission)

[**Elephant Research And Tissue Request Protocol 2005**](#) (AZA and Elephant Research Foundation)



Protocols, Manuals, and Standards

Management Topics (some overlap between categories - check Scientific Topics also)

[Guidelines For Comprehensive Elephant Health Monitoring Program](#) (SSP - AZA - USA)

May 2005

[AZA Standards for Elephant Management and Care](#) (AZA)

[Management Guidelines for Elephants](#), (BIAZA - British & Irish Association of Zoos & Aquariums)

[Recommended Elephant Preshipment Guidelines 2003](#) (AZA - USA)

[Captive Elephant Management Rules](#) (DRAFT) (Kerala, India)

[Handbook Elephants: Nutrition and Dietary Husbandry](#) Nutrition Advisory Group of the AZA

[Practical Elephant Management A Handbook for Mahouts](#) (India)

[Elephant Birth Protocol](#) (Fiddle's Elephant and Wildlife Sanctuary (U.S.))

[Standard Guidelines for Elephant Management 2005](#) (EMA- U.S.)

[Transport Guidelines For Elephants 2002](#) (AZA - U.S.)

[Quarantine Guidelines For Elephants 2003](#) (AZA - U.S.)

[Draft Statement of Principles Elephant Acquisition and Management](#) (Australian Regional Association of Zoological Parks and Aquaria (ARAZPA))

[Buddhism and Deep Ecology for Protection of Wild Asian Elephants in Myanmar: A Resource Guide](#) Daniel H. Henning, PhD

Diseases of Elephant – Fact sheets

- Encephalomyocarditis (EMC, EMCV)
- Endotheliotropic Herpesvirus (EEHV)
- Rabies
- Salmonellosis
- Signs of Health and Disease
- Tetanus
- Tuberculosis



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Elephant Bulletin Board

Your document or image could be posted here

[West Nile Virus Update in Elephants](#)

(follow the link for the latest information on the U.S. situation and need for additional reporting)

[ISIS Values now available for Asian Elephants](#)

[ELEPHAS MAXIMUS - ASIATIC ELEPHANT Weights & Physiological Reference Ranges](#)

[The IUCN/SSC AfESG Guidelines for the *in situ* Translocation of African Elephants for Conservation Purposes now available](#)

The IUCN/SSC AfESG Guidelines for the *in situ* Translocation of African Elephants for Conservation Purposes is newly available, in pdf format, on the AfESG web site. It is published in the following languages: English (PDF 774 Kb), French (PDF - 834 Kb) and Portuguese (PDF - 824 Kb).



Sumatra - Elephant Healthcare & Conservation Project

- Worked in Sumatra 2000-2003
- Under unpaid auspices of WWF
- Goal to improve healthcare and conservation
- Encountered corruption and callous disregard
- Collected data revealing 85% mortality among government-captured elephants
- Indonesia government harassment – hasty escape
- Continue to work for change >



Of 117 Elephant Captures in Riau, Sumatra Sept. 2000 – Feb. 2003

62 confirmed dead

4 died later

4 reported as “lost” (likely dead)

39 translocated / expected to die

109 elephants dead, lost, or likely to die

A known death rate of at least 85 percent

Wild Elephant Populations in Riau, Sumatra 1990-2006

- 1990 1100-1700
- 2000 600-700
- 2006 350





Publications on the Sumatran Crisis

- **Occurrence and prevention of capture wounds in Sumatran elephants (*Elephas maximus sumatranus*).** Mikota, S. K., Hammatt, H., and Finnegan, M., Proceedings American Association of Zoo Veterinarians. 291-293. 2003.
- **Implications of New Data for Sumatran Elephants in Captivity - *Time for Change*,** H. Hammatt, Drh Y. Fahrimal, S. Mikota DVM *Proceedings of the International Symposium on Human-Elephant Relationships and Conflicts, Sri Lanka 2003*
- **Elephant Injuries and Deaths, Riau Province Indonesia, July 2000 - June 2003,** A report to the Government of Indonesia by Mikota and Hammatt
- **Sumatran Elephants in Crisis—Time for Change**
S. Mikota, H. Hammatt, and Y. Fahrimal, a book chapter in *Elephants and Ethics* (in press)
- **plus many other presentations and reports**
- **See also** www.elephantcare.org/sumshort.htm



Additional projects

- Small grants program
- Open access elephant medical image library
- Open access PowerPoint collections on elephant healthcare

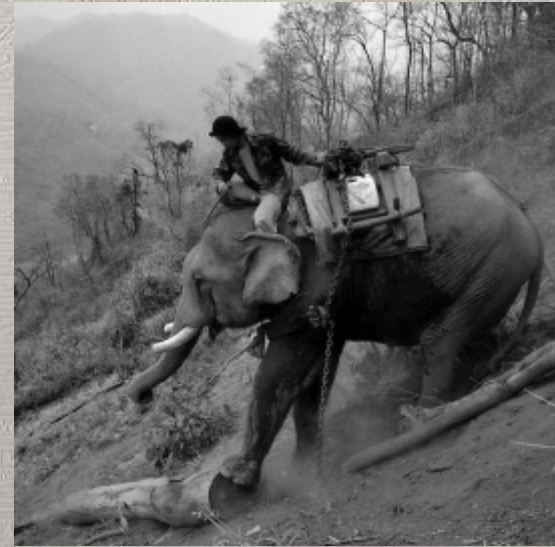


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Laos



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Position Statement

We welcome diverse viewpoints.

The strong opinions that elephants evoke can either be useful, driving one to greater efforts to save the species, or they can be counter-productive. If we allow ourselves to be blinded by our convictions, we may at best fail to see beneficial aspects of other positions and, at worst, contribute to the demise of the creatures we seek to save.



ECI Projects - recap

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- Sri Lanka: Community-Based Conservation
- Elephant Publications
- Resources for Elephant Professionals (website)
- Sumatran Elephant Healthcare & Conservation



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Thank You!

**Please consider a donation
to help us help the elephants!**



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