Content

Preface		11
Overview of the International Elephant Foundation (IEF)		13
Overview of the International Rhino Foundation (IRF)		15
Oral Session - Eleph	nants	17
DASTIG, Birgit	Birth and Reproduction Rate in a Herd of Captive Asian Elephants at the Pinnawela Elephant Orphanage	19
DOUGLAS-HAMILTON, Iain	In the Footsteps of the Elephants	24
FRITSCH, Guido	New Aspects of Sexual Maturation in Male Elephants	25
GANSLOSSER, Udo	Behavioural Ecology, Social Relationships, Life History and Evolutionary Constraints in Megaherbivores	26
GARAI, Marion E.	Social Behaviour of the Elephants at Pinnawela Elephant Orphanage, Sri Lanka	32
HART, Benjamin L.	Cognition and Tool Use in Elephants	41
HART, Lynette A.	Bioseismic Communication Mechanisms in Elephants and Rhinoceroses	42
HEINE, Nicole	Social Roles, Family Units and the Formation of Clans in Asian Elephants of the Uda Walawe National Park (Sri Lanka)	47
HILDEBRANDT, Thomas B.	Results of Artificial Insemination Programmes in Asian and African Elephants Kept Under Different Management Systems	52
HINKE, Angelika	A Severe Case of Pox Disease in Two Asian Elephants (<i>Elephas maximus</i>) of a Small Travelling Circus Overwintering Near Erfurt	53



KURT, Fred	Stereotypies in Captive Asian Elephants – A Symptom of Social Isolation	57
KURT, Fred	Musth in Wild – Living and Captive Asian Elephants in Sri Lanka	64
LEHNHARDT, John	Elephant Artificial Insemination (AI) in Protected Contact	70
MAHASAVANGKUL, S.	Domestic Elephant Status and Management in Thailand	71
MILLER, Michele	Salmonella Culture and PCR Results in a Group of Captive African Elephants (Loxondonta africana)	83
MONTALI, Richard .J.	Management Aspects of Herpesvirus Infections and Tuberculosis in Elephants	87
MOSS, Cynthia J.	Elephant Research in Amboseli: A Perspective from 28 Years	96
OERKE, Ann-Kathrin	Reproductive Characteristics of the European Elephant Population: Long-Term Cycle and Pregnancy Data Based on Non-Invasive Methodology	103
PIELER, Eva	Tool Behaviour in Asian Elephants	104
RASMUSSEN, L.E.L.	Musth in Teenage Male Asian Elephants (<i>Elephas maximus</i>): The What & the Why of their Chemical Signals	110
RATANAKORN, Parntep	Elephant Health Problems and Management in Cambodia, Lao and Thailand	111
REIMERS, Michaela	Daily Activities and Home Ranges in Wild Asian Elephants of the Uda Walawe National Park (Sri Lanka)	115
RIDDLE, Heidi S.	Are Female African Elephants Messaging through Volatile Chemicals? Studies from European, USA, and African Groups	119
RIETSCHEL, Wolfram	Sedation of Thai Working Elephants with Xylazine and Atipamezole as a Reversal	121

SCHMIDT, Susanne	Sleep in a Herd of Captive Asian Elephants in the Pinnawela Elephant Orphanage (Sri Lanka)	124
SCHMITT, Dennis L.	Surgical Approach to Artificial Insemination in Elephants	129
SWANEPOEL, Hendrik	African Elephant-Asissted-Therapy for Handicapped Children	132
TERKEL, Amelia	Overview of the African Elephant EEP	133
THONGTHIP, Nikorn	Fiberglass Casting in an Asian Elephant	136
TIEDEMANN, Ralph	Population Dynamics in Wild-Living and Captive Asian Elephants: Demographic and Genetic Aspects	140
WEIHS, Wolfgang	Body Growth and Food Intake in a Herd of Captive Asian Elephants in the Pinnawela Elephant Orphanage (Sri Lanka)	141
WHITEHOUSE, Anna M.	Genetic Diversity and Paternity of the Elephant Population in Addo Elephant National Park, South Africa	146
WILSON, Megan L.	Behavior and Serum Cortisol Concentrations of three Captive African Elephants (<i>Loxodonta africana</i>): Preliminary Results	147
WINGATE, Lisa	Is Musth a Reproductive Event: An Examination of Arguments For and Against this View	150
Oral Session – Rhii	nos	157
ATKINSON, Mark W.	Long-term Medical and Surgical Management of Chronic Pododermatitis in a Greater One-horned Rhinoceros (<i>Rhinoceros unicornis</i>): A Progress Report	159
BLUMER, Evan S.	Overview of IRF/ AZA Rhino TAG Conservation & Research	164

BOBKO, Christine M.	Practical Applications of Operant Conditioning for Health, Research and Behavior in the Black Rhinoceros	165
BOSI, Edwin	Sumatran Rhino Conservation Strategy in Sabah, Malaysia	166
CUNNINGHAM, Jessica	Counting Rhinos From Dung: A Method to Estimate the Minimum Number of Animals Present in a Protected Area Using Microsatellite DNA	173
DIERENFELD, Ellen S.	Development of a Pelleted Diet for Browsing Rhino Species Based on Native Plant Composition	174
HARLEY, Eric H.	Red Cell Metabolism in the Black Rhinoceros: Relevance to Haemolytic Disease	181
HERMES, Robert	Semen Collection, Sperm Assessment and Cryo-Preservation in African Rhinoceroses	182
KELLNER, Katharina	AFLP as an Economical Method to Correct Field Observations for Genetic Wildlife Management in Rhinoceros	183
KIEFER, Britta	Digestibility Trials in the Zoo Compared to Field Studies of White Rhinoceros	190
KRETZSCHMAR, Petra	Population Growth, Sex Ratio and Reproduction of White Rhinoceros in South Africa	196
MASKEY, Tirtha M.	Reintroduction of Greater One-horned Rhinoceros (<i>Rhinoceros unicornis</i>) in the Royal Bardia NP and Royal Suklaphanta WR, Western Lowland, Nepal	202
MILLER, R. Eric	An Overview of Diseases of Black Rhinoceroses in North America 1980-2001	210
O`RYAN, Colleen	Microsatellite Analysis of African Black Rhinoceros (<i>Diceros bicornis</i>) to Determine Genetic Diversity and Population Structure	216
PAGLIA, Donald E.	Pathological Iron Overloads Acquired in Captivity by Browsing (but not by Naturally Grazing) Rhinoceroses	217

SCHAFFER, Nan E.	Successful Electroejaculation and Other Semen Procurement Methods from four Species of Rhinoceros (Ceratotherium simum, Diceros bicornis, Rhinoceros unicornis, Dicerorhinus sumatrensis)	218
SCHWARZENBERGER, F.	An IRF/SOS Rhino Sponsored Integrated Approach for the Enhancement of Reproductive Performance of White Rhinoceroses in the EEP	219
SINHA, Satya Priya	Management of Re-Introduced Greater One-horned Rhinoceros (Rhinoceros unicornis) in Dudhwa National Park & Tiger Reserve, Uttar Pradesh, India	222
VAN STRIEN, Nico J.	Conservation Programs for Sumatran and Javan Rhino in Indonesia and Malaysia	231
WALZER, Chris	Anesthesia Management in White Rhinos for Reproductive Evaluation, Semen Collection and AI – a Team Approach	237
Dooton Constant Fl	a ala a a ta	
Poster Session – Ele	epnants	243
BALL, Ray L.	Ultrasound Evaluation of the Pleura Space and Associated Connective Tissue in the Asian Elephant (<i>Elephas maximus</i>)	245
BARINA, Alfred	Development of an Interactive Elephant Feeding System (EFS)	246
CLAUSS, Marcus	Investigations on the Use of Chromium Oxide as an Inert, External Marker in Captive Asian Elephants (<i>Elephas maximus</i>): Passage and Recovery Rates	250
CLAUSS, Marcus	Tannins in the Nutrition of Wild Animals	251
CLAUSS, Marcus	N-6 and n-3 Polyunsaturated Fatty Acids in the Nutrition of Wild Animals	252

DHAKAL, Narayan	Role of Domestic Elephants (Elephas maximus) in Park Management: Nepal's Experience	255
GANSWINDT, André	Faecal Glucocorticoid and Androgen Metabolite Excretion in Male African Elephants (Loxodonta africana)	258
GARAI, Marion E.	Managing Elephants on Private Reserves in South Africa	259
GOERITZ, Frank	Results of Hormonal Contraception in Free-Ranging African Elephants	262
GSANDTNER, Hermann	Future Perspectives for Elephant-Keeping in Circuses	263
HINKE, Angelika	A Case of Molar Anomalie in an Asian Elephant (Elephas maximus)	264
HORWATH, Angela	Sounds of a Newborn African Elephant (Loxodonta africana) in Captivity	265
LINHART, Peter	Methods of Elephant Translocations	268
MEIER, Daniel	"Beira": Fourth Molar in Lower Jaw of an African Elephant (Loxodonta africana)	269
MIKOTA, Susan K.	Elephant Care International: An Independent Program Devoted to Elephant Healthcare and Conservation	272
MÜLLER, Simone	Molecular Genetic Identification of Elephant Products	277
OKAYAMA, Toshinao	Mitochondrial DNA Analysis of Sumatran Elephants	278
PIELER, Eva	Man – Elephant – Conflicts in the Uda Walawe Nationalpark (Sri Lanka)	282
PUCHER, Herwig E.	Endocrine and Spermatological Evaluations of Semi-Wild Ranging Male Asian Elephants (Elephas maximus) in Vietnam – Preliminary Results	283
REIMERS, Michaela	Quantifying Locomotion in African Elephants (Loxodonta africana) at the Vienna Zoo	284

RIETSCHEL, Wolfram	Relevant Ectoparasites in Camp Elephants in Thailand	285
SCHULTE, Bruce A.	The Trunk and Tail of Elephant Communication: Studies on Captive Asian Elephants	286
SCHULTE, Bruce A.	Examining Ideas on the Evolution of Musth	287
SCHULTE, Bruce A.	Object Manipulation in Captive Asian Elephants	288
SCHWAMMER, Harald	From Artificial Insemination to Birth. A Case Study on African Elephants (<i>Loxodonta africana</i>)	289
WEHNELT, Stephanie	The New Elephant Exhibit at Chester Zoo - High Husbandry and Welfare Standards	293
WEIHS, Wolfgang	Molar Growth and Chewing Frequencies as Age Indicators in Asian Elephants	294
Poster Session - Rh	inos	297
ABERHAM, Alexandra	Stimulation of Territorial and Mating Behaviour by Faecal Samples. A Comparative Study on Behaviour of Captive and Free-Living White Rhinoceros	299
AGIL, Muhammad	A Program of Managed Breeding for the Sumatran Rhinoceros at the Sumatran Rhino	303
	Sanctuary, Way Kambas National Park, Indonesia	
BALL, Ray L.		304
BALL, Ray L. BALL, Ray L.	Sanctuary, Way Kambas National Park, Indonesia Comparison of the Antiphospholipid Syndrome to Medical Syndromes of Captive Black Rhinos	304
•	Sanctuary, Way Kambas National Park, Indonesia Comparison of the Antiphospholipid Syndrome to Medical Syndromes of Captive Black Rhinos (Diceros bicornis) Multiple Isoflurane Anesthesia in a Captive	

HENNIG, Jens	Feeding Habits of Desert Dwelling Black Rhinoceros (<i>Diceros bicornis</i>), in Kunene Region, Northwest of Namibia	311
HERMES, Robert	Reproductive Disorders in White Rhinoceroses and the Value of Ultrasonographic Assessment	314
MRAZ, Bernhard	Faecal Steroid Analysis in Free-Ranging Female White Rhinoceroses (<i>Ceratotherium simum</i> simum) on Otjiwa Game Ranch in Namibia	315
SCHAFFER, Nan E.	Progesterone Supplemented Pregnancy in a Black Rhinoceros (<i>Diceros bicornis</i>): A Case Report	316
SCHAFFER, Nan E.	Utero – Ovarian Pathological Complex of the Sumatran Rhinoceros (<i>Dicerorhinus sumatrensis</i>)	322
SILINSKI, Sandra	Influence of Alpha-2-Agonists on Manual Semen Collection in a Standing White Rhinoceros (Ceratotherium simum simum)	323
TERKEL, Amelia	Genetic Kinship and Social Structure in White Rhinos at the Zoological Center Tel Aviv Ramat Gan (Safari)	327
TUAH, Mohamed	Demographics of Sumatran Rhinoceros (Dicerorhinus sumatrensis harrissoni) in Sabah, Malaysia: Correlation to Food Distribution in Tabin Wildlife Reserve	330
VON HOUWALD, Friederike	An Overview of Pathological Alterations of Hooves and Soles of Captive Indian Rhinos (<i>Rhinoceros unicornis</i>) and a Comparison of Anatomical Foot Structures of Captive and Wild Indian Rhinoceroses	331
Research and Conservation Directions		333

Research and Conservation Directions Workshop