



Pachyderm

Journal of the African Elephant, African Rhino
and Asian Rhino Specialist Groups

October 2022—September 2023

No. 64

Managing Editor

Suzannah Goss

Section Editors

Kees Rookmaaker—African and Asian Rhinos

Lydia Tiller—African Elephants

Editorial Board

Sam Ferreira

Deborah Gibson

Suzannah Goss

Mike Knight

Benson Okita-Ouma

Robert Olivier

Kees Rookmaaker

Rob Slotow

Bibhab K Talukdar

Lucy Vigne

Copy Editors

Andrew Halliday

Suzannah Goss

Lucy Vigne

IT/web design and management

Rafael Slonik

Layout

Roshni Peshavaria

Address all correspondences, including enquiries about subscription, to

The Managing Editor, *Pachyderm*

PO Box 68200–00200

Nairobi, Kenya

Email: pachydermeditor@gmail.com

Website: http://www.iucn.org/african_elephant

<http://pachydermjournal.org>

Reproduction of manuscripts in this publication for educational or other non-commercial purposes is authorized without written permission from the copyright holder, provided the source is fully acknowledged.

1 Chair reports/Rapports des Présidés

- 1 African Elephant Specialist Group Chair report/ Rapport du Groupe de Spécialistes de l'Eléphant d'Afrique

Benson Okita-Ouma and Rob Slotow

- 13 African Rhino Specialist Group Chair report/ Rapport du Groupe de Spécialistes du Rhinocéros d'Afrique

Mike Knight, Keit Mosweu, Sam M Ferreira

- 31 Asian Rhino Specialist Group Chair report/ Rapport du Groupe de Spécialistes du Rhinocéros d'Asie

Bibhab K Talukdar

37 Research

- 37 A culture of aggression: the Gorongosa elephants' enduring legacy of war

Joyce Poole, Jason Denlinger, Dominique Gonçalves, Petter Granli

Cover caption: A greater one-horned rhino wallowing in Kaziranga National Park, March 2022.

©Anwaruddin Choudhury

The new logo for the 'Estate of Esmond Bradley Martin' was especially designed by Roshni Peshavaria for *Pachyderm*, the images were provided by © Warren Samuels (black rhino), and © Storm Stanley (elephant).

63 Management

- 63 All aboard the 'Elephant Express', a practical solution for human-elephant coexistence

Anna Songhurst, Makata Baitse, Jennifer S Lalley, Sarah Lupton, Maipelo Molatlhegi, Ohitseng Mosupi, Ipelefatso Nkalolang, Botshelo Sensinyi, Amanda Stronza, Tracey L Taylor, Kurt Holle, Graham McCulloch

- 78 Twisting collars on male elephants in shrub terrain: animal welfare considerations for researchers, managers and manufacturers

Brooke Friswold, Brett Mitchell, George Gale, Antoinette Van de Water

- 92 Behaviour and habitat preferences of translocated rhinos (*Rhinoceros unicornis*) at Manas National Park, Assam, India

Deba Kumar Dutta

107 Field notes

- 107 Bridging the Rift: demonstrating large mammal landscape connectivity from Amboseli National Park to the greater Maasai Mara

Vicki Fishlock, Lydia Tiller, Norah Njiraini, Catherine Sayialel, Phyllis Lee, Cynthia Moss, Joseph Mukeka, Shadrack Ngene, Patrick Omondi

- 112 A possible case of congenital tusklessness in a male African elephant (*Loxodonta africana*)

Giacomo D'Ammando, David Daballen, David Lolchuragi, David Letityia, George Wittemyer, Vincent Obanda, Iain Douglas-Hamilton, Christopher Thouless

- 120 Integrating local and scientific ecological knowledge to assess African forest elephant (*Loxodonta cyclotis*) populations in a data-deficient region, eastern Democratic Republic of Congo

Leonard K Mubalama and Gedeon T Banswe

- 130 Speculating on transverse grooves in African elephant tusks

Ian SC Parker, Erwan Theleste, Gerhard Steenkamp

- 134 One year after the rollout of the *Coexistence Toolbox* for reducing human-elephant conflict
Tanya Onserio and Lucy King
- 140 Promoting positive interactions with the traumatised elephants of Gorongosa National Park
Joyce Poole, Jason Denlinger, Dominique Gonçalves, Test Malunga, Petter Granli
- 144 White rhino ecology: a comparison of two rhino populations (*Ceratotherium simum simum*), in South Africa and Uganda
Felix J Patton, Petra E Campbell, Angie Genade
- 149 Observations on the first inter calving interval for six, particularly early breeding white rhinos at Ziwa Rhino Sanctuary, Uganda
Felix J Patton, Petra E Campbell, Angie Genade
- 152 Book reviews**
- 152 How to raise a rhino: a biography of Anna Merz, founder of Lewa Downs black rhino sanctuary
Michael Dyer
- 153 Obituaries**
- 153 Mark and Peter Jenkins tribute by *Bongo Woodley*
- 156 Rudi van Aarde tribute by *Jason Bell*
- 158 Guidelines for contributors**

Pachyderm

October 2022—September 2023

No. 64

Journal of the African Elephant,
African Rhino and
Asian Rhino Specialist Groups

Donate to *Pachyderm*

To support the continued publication of *Pachyderm* and its contribution to the conservation and management of African elephants, African rhinos and Asian rhinos, please contact the Managing Editor.

Acknowledgements

The production of this issue of *Pachyderm* was possible through contributions from a number of organizations and individuals. In particular, we would like to thank the following:



Views expressed in *Pachyderm* are those of the individual authors and do not necessarily reflect those of IUCN, the European Union, the Species Survival Commission or any of the three Specialist Groups responsible for producing *Pachyderm* (the African Elephant Specialist Group, the African Rhino Specialist Group and the Asian Rhino Specialist Group).