

RHINO RESOURCE CENTER

www.rhinoresourcecenter.com

NEWSLETTER #62 MARCH 2021

Dear colleagues and friends,

This is the 62nd issue of the quarterly e-newsletter of the Rhino Resource Center. Edited by Dr Kees Rookmaaker.

The total number of references in the collection of the RRC now stands at **25,110**. This is an increase of 158 items in the last quarter. Over 25,000 references are **available** as PDF on the RRC website.



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CLICK ON RHINO**

IN THIS ISSUE:

Rhino-related books in 2020	p.2
Gentle reminders	p.4
Other publications of rhino interest	p.5
Our sponsors	p.6
RRC visitors 14,400 per month	p.7
Contents of the RRC website	p.7
New Literature	
General	p. 8
Asian	p. 14
African	p. 9
Fossil	p. 17
Contact Information	p. 19
Chronicles of rhino in South Asia	p. 19

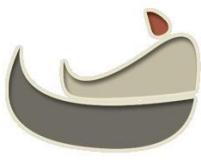
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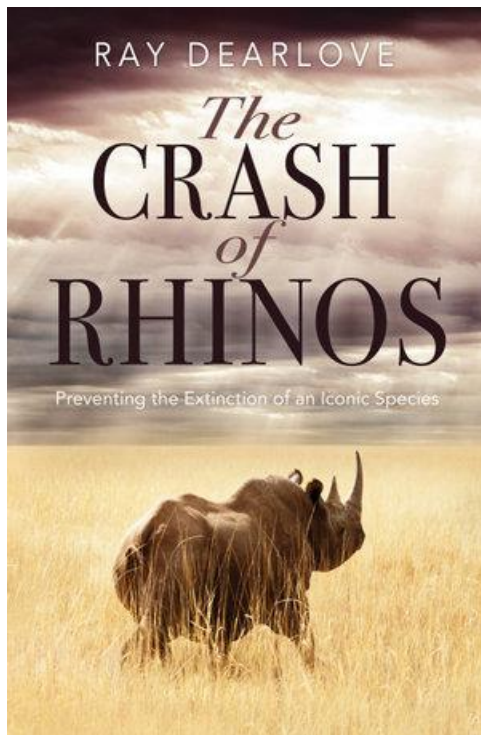
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Some new rhino-related publications published in 2020



<https://www.rhinoray.com.au/>

RAY DEARLOVE 2020

THE CRASH OF RHINOS

Preventing the Extinction of an Iconic Species

From publisher's website:

For the past decade, Ray Dearlove has worked tirelessly for the preservation of the rhinoceros. All five remaining rhino species are under severe threat and on the verge of extinction in their wild habitat due to excessive poaching, driven by a burgeoning market for the consumption of rhinoceros horn in China and South-east Asia.

In May 2013 Ray founded The Australian Rhino Project to establish breeding herds of white and black rhinoceros in Australia as an insurance population for the two species which face imminent threat of extinction.

The Crash of Rhinos traces the origin of the Project to the present with the team still working to relocate rhinos to Australia. It is an insightful, frustrating, humorous and humbling story that will make you laugh, cry and tear your hair out in exasperation. This fascinating story demonstrates what can be achieved by one person with the passion, resilience and dogged persistence to meet challenges, obstacles and the glacial pace of governments - even in the face of a crisis.

And look at the new [Endangered Species Update](#) by Ray Dearlove
First issue available (free) in February 2021



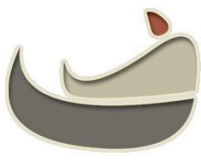
THE WORLD AS IT ONCE WAS 2020

GEORGE DIAN BALAN

<https://www.kickstarter.com/projects/1935973052/the-world-as-it-once-was>
30 x 24 cm 288 pages

Size marvels in itself. The question the author asked himself when embarking on the journey of writing this book was: if a Statue, a Monument were to be raised to a species, what would that look like? What kind of animals and which postures would show the Majesty of a species in all its Glory? Unfortunately, charismatic megafauna faces the fastest extinction speed. Amongst megafauna, one category in particular, the "trophy" individuals, is the first to vanish. Ironically, these animals are the most precious ones, as they possess the highest genetic quality, as a result of natural selection. More than five years in the making, bringing together pictures taken by about 100 highly talented photographers from around the world and benefitting from the scientific advice of 30 world class experts, all well-seasoned with powerful storytelling, this book is a cultural immersion like no other. (From author's information)





Gentle reminders

A DATABASE OF OLD WORLD NEOGENE AND QUATERNARY RHINO-BEARING LOCALITIES **NEW RRC FEATURE**

Edited by Denis Geraads in collaboration with 20 other outstanding paleontologists.

<http://www.rhinoresourcecenter.com/about/fossil-rhino-database.php>

Added to the website on 27 November 2020, this database is intended to provide a list of all Neogene and Quaternary Old World localities that yielded fossil remains of Rhinocerotidae. To be included, the sources must have identified these at least to genus level.

The aim is mostly geographic, and it is not intended as a revision of fossil rhinos. It is probably close to exhaustive for western and central Europe (the major source being Guérin, 1980, with addition of the coordinates), but certainly imperfect for some other areas, because the fossil record is much less complete, or because the location of fossils sites is not published with enough precision (this is especially true of Russian sites). Still, further bibliographic research would certainly increase the sampling.

The database can be searched offline and there are instructions to map the results.

The records will be updated regularly. It is easily found as a new feature on the RRC website though the button on the homepage:

<http://www.rhinoresourcecenter.com/about/fossil-rhino-database.php>

A NEW FILE TO BROWSE THE RRC

It is definitely easy to browse or search the RRC using the long-standing search options found on the “Literature” page. As the contents of the website are ever-increasing, the results often show in long lists.

As a trial, I have combined all references written from 2000 to 2019 in a single file. It is presented as a PDF as this is our standard file option.

Click [here](#) to access the file

This file is easily searchable by any word or combination of letters or words. The entries are alphabetical by first author.

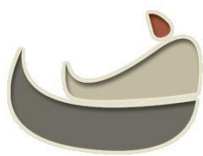
And check out the Appendix for an added bonus.

PACHYDERM NO. 61 FOR 2020

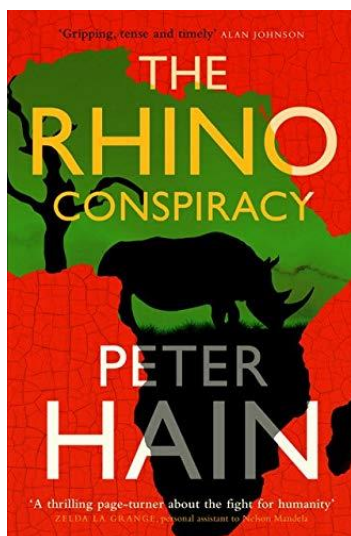
Journal of the African Elephant, African Rhino and Asian Rhino Specialist Groups

Pachyderm, edited by Suzannah Goss, Lydia Tiller (elephants) and Kees Rookmaaker (African and Asian rhinos), publishes peer-reviewed papers about the conservation of these pachyderms in a wide sense. It is platinum open access, without charges for either authors or readers. From this issue it is only published online.

Visit the website: <https://pachydermjournal.org/index.php/pachyderm>

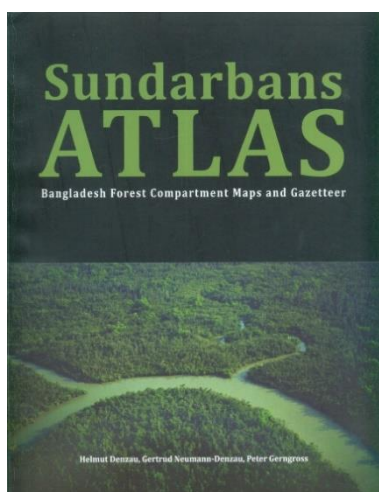
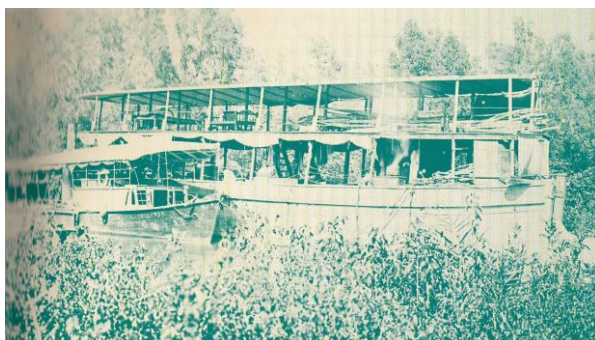


SOME OTHER PUBLICATIONS OF RHINO INTEREST



Peter Hain 2020 The Rhino Conspiracy.

A thriller. Battling to defend the dwindling rhino population, a veteran freedom fighter is forced to break his lifetime loyalty to the ANC as he confronts corruption at the very highest level. Hell-bent on catching the poachers and exposing their trade, the veteran and his young "born free" colleague hatch a plan to install a GPS tracking device inside a replica horn in an attempt to locate its destination. The stakes are high. Can the country's ancient rhino herd be saved from extinction by state-sponsored poaching? Has Mandela's "rainbow nation" been irretrievably betrayed by political corruption and cronyism? (From publisher's advertisement)



Sundarbans Atlas (2015)

Helmut Denzau, Gertrud Neumann-Denzau,
and Peter Gerngross

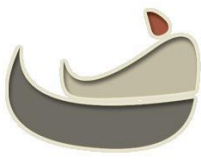
<https://www.nhbs.com/sundarbans-atlas-book>

The Sundarbans forest is the largest continuous mangrove forest in the world, located in the delta of the rivers Ganges, Brahmaputra and Meghna in the Northeast of the Indian Subcontinent at the northern edge of the Bay of Bengal.

This Sundarbans Atlas contains:

- A map of the entire Sundarbans (India & Bangladesh)
- 55 Forest Compartment maps of Bangladesh Sundarbans with legends (English & Bangla)
- A detailed Index-Gazetteer of place names (English)

The Sundarbans Atlas is intended for users like conservationists, scientists, employees of the Forest Department, law-enforcing and other authorities, tourists, tourist companies, journalists, NGOs and legal resource users.



OUR SPONSORS

The board and staff of the Rhino Resource Center gratefully acknowledge the support of our main sponsors:



[SOS RHINO](http://WWW.SOSRHINO.ORG)



[INTERNATIONAL RHINO FOUNDATION](http://WWW.SOSRHINO.ORG)



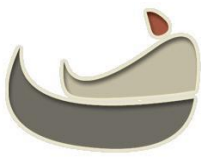
[SAVE THE RHINO](http://WWW.SAVETHERRHINO.ORG)



[RHINO CARHIRE](http://RHINOCARHIRE.COM)

We are grateful to all individuals who show their appreciation by their donation.
Thank you very much.

*The Rhino Resource Center is a registered charity.
We need your assistance to provide our service to all rhino lovers worldwide.*



CONTENTS OF THE RHINO RESOURCE CENTER

The development of the Rhino Resource Center is shown in the table here.

RRC	2020 March	2020 June	2020 Sept	2020 Dec	2021 March	ANNUAL INCREASE
References	24,460	24,572	24,728	24,952	25,110	+ 650
PDF files	24,300	24,523	24,682	24,936	25,054	+ 754
Images	4,544	4,549	4,569	4,589	4,603	+ 59

Many thanks to everybody who has helped us by sending copies of books and papers, information, data, news, pictures, photographs – all shared across the globe.

RRC VISITORS

During three months September to November 2020, www.rhinoresourcecenter.com the RRC recorded 43,200 total clicks (excluding robots).

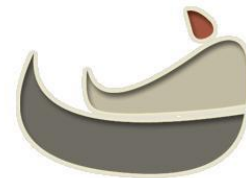
This is 480 per day.

Thank you for visiting the RRC

DONATIONS TO THE RRC

It is really very easy. No problem to the audience of the RRC. To show appreciation of our work and to make future contents even better, a small donation goes a long way. Visits to libraries are no longer necessary, just think of the expensive time gained and research results improved. The button leads to a page with instructions.

[DONATE HERE](#)

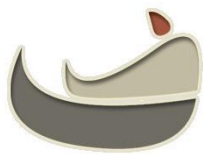


The Rhino Resource Center is an essential tool for

- 🐘 Information and image supply to media
- 🐘 Academic research in biology, conservation studies, art history
- 🐘 Education in primary, secondary and tertiary levels
- 🐘 Conservation of rhinos both *in-situ* and *ex-situ*
- 🐘 Latest information supply of all rhino-related projects
- 🐘 Information on all the latest conservation efforts
- 🐘 All the historical and most current literature.

YES, YOU CAN HELP:

- 🐘 Authors of books, papers and reports can send us a copy after publication.
- 🐘 We are always looking for images of all rhinos in books and in the wild
- 🐘 We aim to include a picture of every rhino ever kept in captivity
- 🐘 Contribute a message to our blog and get into contact with others
- 🐘 Place a link on your website to the RRC which will be reciprocated
- 🐘 Give us a DONATION when you feel the RRC has helped your work.



NEW LITERATURE (finalized 28 February 2021)

In this quarter (December 2020 to February 2021), we have added 158 new references, to bring the total number of items in the database to **25,110**.

Of these, 25,054 or 99 percent are available as PDF and searchable.

Below I have listed new entries published in the 21st century in four categories: General (all species), African rhinos, Asian rhinos and Fossil rhinos.

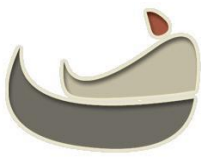
Most additions are available on the website.

Search for them on the RRC, it's easy.

Always check the [RRC website](#) first, many papers are available there.

NEW GENERAL PUBLICATIONS

- Albrecht, D., 2020. Das Gelände hinter dem Kassenhaus am Schlosseingang vom Tierpark Berlin. *Takin (Berlin)* 29 (2): 19-22.
- Anonymous, 2018. Neuigkeiten aus den Hauptstadtzoos. *Takin (Berlin)* 27 (1): 23.
- Balan, G. Dian, 2020. *The world as it once was: wildlife has never been more gloriously shown before*. Brussels, Balan, pp. 1-286.
- Bedford, J.; Zimmermann, M.; Ven, W. van der, 2020. Rallying support for rhinos. *Zooquaria* 109: 24-25.
- Beusterien, J., 2020. *Transoceanic animals as spectacle in early modern Spain*. Amsterdam University Press, pp. 1-254.
- Chaudhry, P.E., 2020. Assessing demand reduction measures for rhino horn consumption. *Psychology and Marketing* 37: 1664-1676.
- Cheung, H.; Mazerolle, L.; Possingham, H.P.; Biggs, D., 2021. Rhino horn use by consumers of traditional Chinese medicine in China. *Conservation Science and Practice* 2021:e365: 1-9 – <https://doi.org/10.1111/csp2.365>.
- Dearlove, R., 2020. *The crash of rhinos: preventing the extinction of an iconic species*. Sydney, Dearlove, pp. 1-356.
- Hahn, A., 2019. *Zoo and wild mammal formulary*. New York, John Wiley, (Rhinoceroses, pp. 279-291).
- Hain, P., 2020. *The rhino conspiracy*. London, Muswell Press, pp. i-iii, 1-376.
- International Rhino Keeper Association, 2020. Various notes. *The Crash* December 2020: 1-10.
- Rodriguez, J.P., 2021. Reverse the Red: achieving global biodiversity targets at national level. *Oryx* 2021 (preview): 1-2.
- Rookmaaker, L.C.; Robovsky, J., 2020. Addenda and Corrigenda: Bibliography of Colin Peter Groves (1942–2017), an anthropologist and mammalian taxonomist. *Lynx (Praha)* (n.s.) 51: 227-229.
- Rookmaaker, L.C., 2020. *Twenty years of literature on the rhinoceros 2000-2019, extracted from the Rhino Resource Center (RRC)* – www.rhinoresourcecenter.com. Doorn, RRC, pp. 1-346.



General – continued

Rookmaaker, L.C.; Rhino Resource Center; Ziegler, D.; Billia, E.M.; Monson, J.; Strien, W. van; Athanassiou, A., 2020. New literature in the Rhino Resource Center. *Electronic Newsletter of the Rhino Resource Center* no. 61 (December): 1-19.

United Nations, 2020. *World Wildlife Crime Report: Trafficking in protected species*. Washington, United Nations.

Ziolko, T., 2020. Wilhelm Karl Hartwig Peters (1815-1883) – Zweiter Direktor vom Zoo Berlin. *Takin (Berlin)* 29 (1): 42-43.



Two lamps of Roman times showing a single-horned rhinoceros (in museums in Verona and New York)

NEW PUBLICATIONS ON AFRICAN RHINOS

Anderson, S., 2021. Zwei Mädchen [Northern white rhino in Kenya]. *Stern* 2021 January 28: 58-61 (from New York Times).

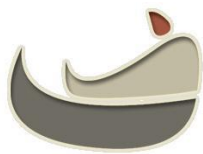
Anonymous, 2018. Durchbruch in der Rettung des Nördlichen Breitmaulnashorns. *Takin (Berlin)* 27 (2): 40-43.

Benda, P.; Cerveny, J.; Eiseb, S.J.; Uhrin, M., 2020. Earless *Diceros bicornis* in the Etosha National Park, Namibia (Perissodactyla: Rhinocerotidae). *Lynx (Praha)* (n.s.) 51: 213-218.

Callaway, E., 2016. Geneticists aim to save rare rhino. *Nature* 533 (5 May 2016): 20-21.

Chapman, L.A.; White, P.C.L., 2021. Patterns in rhino poaching activity on private land in South Africa. *African Journal of Ecology* 2021 - early view: <https://doi.org/10.1111/aje.12842>.

Chavey, S., 2013. Serum testing the black rhinoceros in Africa. *Lifelines* (Kansas State University) 8: 1, 4.

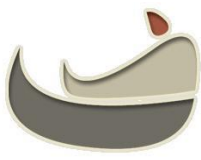


African Rhinos – continued



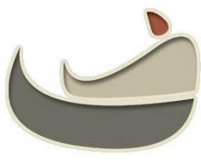
Black rhino drawn by Hans Dressler 1933 (Cyfrowe Muzeum Narodowe w Warszawie)

- Chileshe, J.; Kerr, T.J.; Kinnear, C.; Buss, P.E.; Helden, P.D. van; Warren, R.M.; Miller, M.E.; Parsons, S.D.C., 2021. Cytokine biomarker discovery in the white rhinoceros (*Ceratotherium simum*). *Veterinary Immunology and Immunopathology* 232 (110168): 1-6 – <https://doi.org/10.1016/j.vetimm.2020.110168>.
- De Francesco, T.; Adamo, I.; Duraccio, S.; Gippoliti, S., 2020. Catalogo annotato della raccolta zoologica di Elena d'Orléans, duchessa d'Aosta, presso la Biblioteca Nazionale di Napoli. *Bollettino del Museo Civico di Storia Naturale di Verona* 44 (Botanica, Zoologia): 29-60, 10 figs.
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- Doormaal, N.van, 2018. Reactionary script after rhino poaching event. In: Lemieux, A.M., *The poaching diaries*, vol. 1. Phoenix, AZ: Center for Problem Oriented Policing: pp. 48-53.
- Doormaal, N.van; Lemieux, A.M.; Ruiter, S., 2018. Understanding site selection of illegal border crossings into a fenced protected area: a rational choice approach. *Crime Science* 7 (7): 1-11.
- Dwyer, R.A.; Witte, C.; Goosen, W.J.; Miller, M., 2020. Epidemiology of tuberculosis in multi-host wildlife systems: implications for black (*Diceros bicornis*) and white (*Ceratotherium simum*) rhinoceros. *Frontiers in Veterinary Science* 7 (Article 580476): 1-15.



African Rhinos – continued

- Emslie, R., 2020. Red List, supplementary information: African Rhinos (*Ceratotherium simum* and *Diceros bicornis*, including the subspecies). In: IUCN 2020. IUCN Red List of Threatened Species. <www.iucnredlist.org>: pp. 1-54.
- Gambra Caravantes, D., 2020. Anti-predatory responses of white rhinoceros (*Ceratotherium simum*) to simulated risk. Does poaching create a landscape of fear? Thesis to the Swedish University of Agricultural Sciences, pp. 1-49.
- Gardner, B.R.; Rourke, N.L., 2021. Multimodal analgesia in a Southern White Rhinoceros (*Ceratotherium simum*) with pentosan polysulfate, gabapentin, amantadine and phenylbutazone to manage chronic pain. *Australian Veterinary Journal* 2021: 1-3 - doi: 10.1111/avj.13043.
- Gilliland, H.C., 2019. Bold effort to save rhino completes critical step. National Geographic - online blog 2019 August 23: 1-6.
- Groves, C.P., 1992. How old are subspecies? A tiger's view of human evolution. *Archaeology in Oceania* 27 (3): 153-160.
- Hermes, R.; Goeritz, F.; Wiesner, M.; Richter, N.; Mulot, B.; Alerte, V.; Smith, S.; Bouts, T.; Hildebrandt, T.B., 2020. Parturition in white rhinoceros. *Theriogenology* 156: 181-188 – doi.org/10.1016/j.theriogenology.2020.06.035.
- Hildebrandt, T.B.; Holtze, S.; Biasetti, P.; Colleoni, S.; and 17 others, 2021. Conservation research in times of COVID-19 – the rescue of the northern white rhino. *Journal of Applied Animal Ethics Research* 2021: 1-22 - DOI: 10.1163/25889567-BJA10009.
- Jackson, L., 2018. Browse availability and resource utilisation by the eastern black rhinoceros (*Diceros bicornis michaeli*) on two wildlife conservancies in Kenya. Thesis presented to the University of Southampton, pp. 1-66.
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- Korody, M.L.; Ford, S.M.; Nguyen, T.D.; Pivaroff, C.G.; Valiente-Alandi, I.; Peterson, S.E.; Ryder, O.A.; Loring, J.F., 2021. Rewinding extinction in the northern white rhinoceros: genetically diverse induced pluripotent stem cell bank for genetic rescue. *Stem Cells and Development* 30 (4): 177-189.
- Lang, H., 1929. One of the last white rhinoceros in Umfolozi. *Illustrated London News* Saturday 09 February 1929: 226-227.
- Mamba, H.S.; Randhir, T.O.; Fuller, T.K., 2020. Community attitudes and perceptions concerning rhinoceros poaching and conservation: A case study in eSwatini. *African Journal of Wildlife Research* 50 (1): 1-7 - DOI: 10.3957/056.050.0001.
- Miazga, K.; Joubert, J.; Sinclair, M.; Cywinska, A., 2020. Releasing three orphaned white rhinoceroses (*Ceratotherium simum*) to the Game Reserve in South Africa: rehabilitation, translocation and post-release observations. *Animals* 10 (12), 2224: 1-15 - <https://doi.org/10.3390/ani10122224>.
- Moneron, S.; Brock, B.; Newton, D., 2020. *Insights from the incarcerated: an assessment of the illicit supply chain in wildlife in South Africa*. Cambridge, Traffic, pp. 1-36.



African Rhinos – continued

- Moodley, Y.; Westbury, M.V.; Russo, I-R.M.; Gopalakrishnan, S.; Rakotoarivelo, A.; Olsen, R.A.; Prost, S.; Tunstall, T.; Ryder, O.A.; Dalen, L.; Bruford, M.W., 2020. Interspecific gene flow and the evolution of specialisation in black and white rhinoceros. *Molecular Biology and Evolution* 37 (11): 3105-3117 - <https://doi.org/10.1093/molbev/msaa148>.
- Mori, B. de; Spirit, M.M.; Pollastri, I.; Normando, S.; Biasetti, P.; Florio, D.; Andreucci, F.; Colleoni, S.; Galli, C.; Goeritz, F.; Hermes, R. and 10 others, 2021. An Ethical Assessment Tool (ETHAS) to evaluate the application of Assisted Reproductive Technologies in mammals' conservation: the case of the Northern White Rhinoceros (*Ceratotherium simum cottoni*). *Animals* 11 (312): 1-21 - doi.org/10.3390/ani11020312.
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- Powell Cotton, P.H.G., 1907. An explorer's honeymoon: Major Cotton's unique experience. *Illustrated London News* 1907 April 13: 561.
- Powell Cotton, P.H.G., 1907. An honeymoon among the pygmies: Major and Mrs. Powell Cotton's African Adventures. *Graphic (London)* 1907 March 9 (Supplement): 1-3.
- Purisetayo, T., 2020. Development of genetic tools for managing populations of the southern white rhinoceros (*Ceratotherium simum simum*). Thesis presented to University of Glasgow, pp. 1-267.



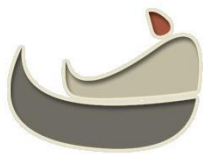
Northern white or Nile rhinoceros. Male called "Ben" in London Zoo, photographed by Chris Brack in 1979. Ben was caught in Uganda, arrived in London Zoo on 25 July 1955, was transferred to Dvur Kralove on 27 August 1986 where he died on 25 June 1990. Studbook no. 19. (Chris Brack, 1979)



African Rhinos – continued

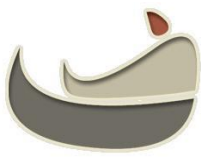
- Radcliffe, R.W.; Jago, M.; Morkel, P.; Morkel, E.; DuPreez, P.; Beytell, P.; Kotting, B.; Manuel, B.; DuPreez, J.H.; Miller, M.A.; Felipe, J., Parry, S.A., Gleed, R.D., 2021. The pulmonary and metabolic effects of suspension by the feet compared with lateral recumbency in immobilized black rhinoceroses (*Diceros bicornis*) captured by aerial darting. *Journal of Wildlife Diseases* 2021 - early view: <https://doi.org/10.7589/2019-08-202>.
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- Schaap, F., 2021. Todliche Jagd (Wilderei in Sud-Afrika). *Spiegel* 2021 (2), 9 January: 84-87.
- Soley, J.; Du Plessis, L., 2020. Sperm morphology in the southern white rhinoceros (*Ceratotherium simum*). *Animal Reproduction Science* 220 (10636): 28.
- Stanbridge, D., 2020. Genetic admixture of Kruger National Park black rhino (*Diceros bicornis minor*): conservation implications. Thesis presented to the University of Cape Town, pp. 1-52.
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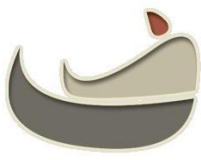
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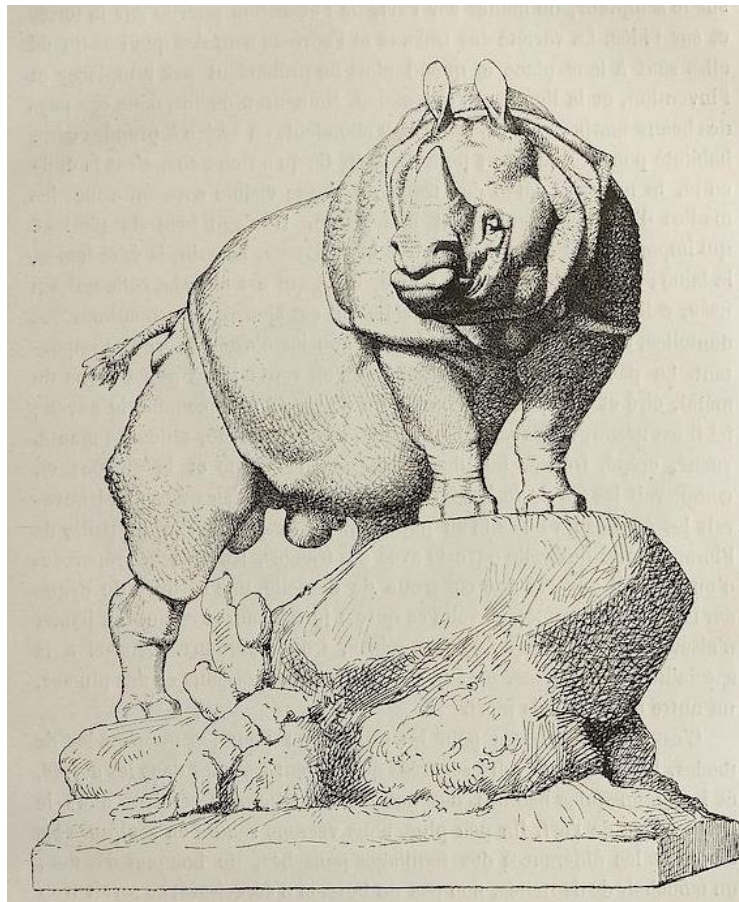
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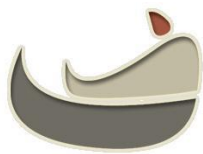


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Drawing of Jacquemart's bronze in the Jardin des Tuileries, 1878



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Section edited by Emmanuel Billia, Dan Ziegler and Athanassios Athanassiou.

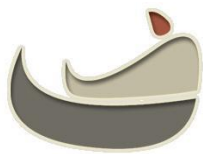
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Our new feature on the RRC on fossil rhinos:

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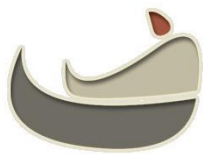


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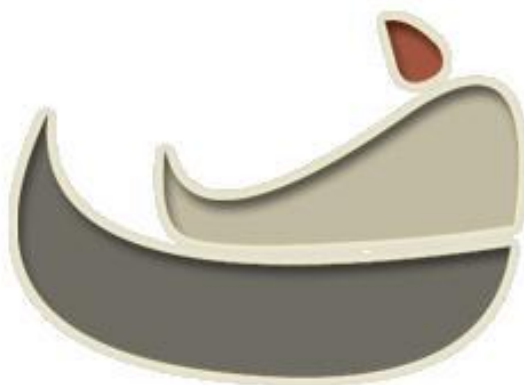
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Matthew Hillier, Sumatran rhino with young in Torgamba Forest, Sumatra



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Dr Kees Rookmaaker has actively worked on the biology and history of the rhinoceros for 50 years. He is a member of the IUCN-SSC Asian Rhino Specialist Group, and advisor to the EAZA Rhino TAG and to the International Rhino Foundation. He is the editor of the rhino section of *Pachyderm*. Author of eight books on African and Asian exploration and on the rhinoceros, as well nearly 250 shorter publications, many in peer-reviewed journals. Until 2015, he worked as a Senior Research Fellow on [Darwin Online](#) and [Wallace Online](#) at the National University of Singapore. He was Secretary of the International Commission on Zoological Nomenclature (ICZN) for a short period in 2015. The Society for the History of Natural History awarded him their Founder's Medal, and he served in the Council for several years.

CHRONICLES OF THE RHINOCEROS IN SOUTH ASIA

This is a new project to review and archive the historical information on the interaction between men and rhinoceros in the South Asian subcontinent. There is much amazing information in all kinds of publications, as well as data on rhino trophies and specimens in museums and private collections. I am particularly excited about some of the older artwork and photographs which can still be found.

-  Pictures of any rhinoceros in art or alive in Indian subcontinent
-  Historical photographs of rhinos hunted or seen before 1970
-  Data on trophies and specimens in museums and private collections

All contributions are always welcome

Kees Rookmaaker – 2021