

RHINO RESOURCE CENTER

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NEWSLETTER #58 MARCH 2020

Dear colleagues and friends,

This is the 58th 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 **24,460**. This is an increase of 230 items in the last quarter. Over 24,300 references are **available** as PDF on the RRC website.



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The Rhino Resource Center is a Charity (Registered KvK Utrecht 30185802)

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CLARA'S TOUR – FOR CHILDREN

Clara, the female Indian rhinoceros who toured through much of Europe between 1741 and 1758 remains a favourite subject for young and old. Born on 19 June 1738 (a date often overlooked, but see p.316 [here](#)), her Dutch owner Douwe Mout van der Meer made a grand tour with her, exposing the European public for the first time to a new and powerful animal.

The new book written by Katrin Hirt and Laura Fuchs tell the story for the younger generation. The illustrations are delightful. An English version may be on the way.



Hirt, Katrin; Fuchs, Laura, 2019. *Ein Nashorn namens Clara*. Zurich, NordSüd Verlag.



SCHAFFER, AGIL, ZAINUDDIN ON REPRODUCTIVE DISEASES IN THE SUMATRAN RHINOCEROS

A pivotal paper published in the peer-reviewed and highly regarded *Journal of Threatened Taxa* explores the reasons of the high incidence of reproductive pathologies in animals captured since the 1980s. The baseline data of this research are available only on the RRC website: [Schaffer, N.E., 2018](https://www.threatenedtaxa.org/index.php/JoTT/article/view/5390). Sumatran rhinoceros: reproductive data 1991-1999 (with updates and addenda). *SOS Rhino*, pp. 1-78

ABSTRACT: The Sumatran Rhino (*Dicerorhinus sumatrensis*) is on the edge of extinction. The decline of this species was initially attributable to poaching and habitat loss; yet the evidence presented below indicates that reproductive failure has been another significant cause for loss, which continues to affect wild populations in the wild. Indonesia's scattered, small populations of Sumatran rhino persist with limited access to breeding opportunities and unrelated mates. Consequently, they remain subject to the compounding effects of inbreeding and isolation-induced infertility, which have been linked to the fertility problems analyzed in this paper.



Sumatran rhino females in captivity suffered very high rates of reproductive pathology and/or problems with conception (Indonesia: > 70%; Malaysia: > 80%), which significantly hindered the breeding program. Technological advances enabling examination immediately after capture revealed similarly high rates and types of reproductive problems in individuals from wild populations in the wild.

Indeed, the last seven Sumatran rhino females captured were from areas with small declining populations and six out of the seven had reproductive problems.

Going forward, capturing similarly compromised animals will take up valuable space and resources needed for fertile animals. Given the high risk of infertility and difficulty treating highly pathologic conditions coupled with the decreasing number of remaining animals, success of the renewed efforts toward building a viable, captive population will depend upon utilizing fertile animals from the start and applying assisted reproductive techniques to boost production for both fertile and compromised animals. Decades of exhaustive in situ surveys have provided no information relevant to population management or to ascertaining the fertility status of individual animals.

Therefore, the first priority should be the capture of individuals as new founders from areas with the highest likelihood of containing fertile rhinos evidenced by recent camera trap photos of mothers with offspring: Way Kambas and certain areas of the Leuser ecosystem, both in Sumatra.

Schaffer, N.E.; Agil, M.; Zainuddin, Z.Z., 2020. Ramifications of reproductive diseases on the recovery of the Sumatran rhinoceros *Dicerorhinus sumatrensis* (Mammalia: Perissodactyla: Rhinocerotidae). *Journal of Threatened Taxa* 12 (3): 15279-15288. –

<https://www.threatenedtaxa.org/index.php/JoTT/article/view/5390>



LIST OF SUMATRAN RHINO IN CAPTIVITY SINCE 1984 Compiled by Kees Rookmaaker, 2020

Sumatran rhino captured or kept in Sumatra (Indonesia) 1984 to 2019.

SB	Capture	Arrival	Sex	Age	Name	Facility	Death	Life
04	Sumatra - Torgamba	1985-11-25	M	4 yrs	Torgamba	Port Lympne - Way Kambas	2011-04-25	9282
05	Sumatra - Torgamba	1986-01-23	F	ad	Riau	Capture site	1986-01-23	1
06	Sumatra - Torgamba	1986-02-02	M	ad	Rokan	Surabaya	1993-08-12	2748
08	Sumatra - Torgamba	1986-03-24	M	2 yrs	Jalu	Jakarta Ragunan	1994-06-15	3005
09	Sumatra - Torgamba	1986-06-15	M	n/a	Napangga	see Malaysia	1987-08-06	417
10	Sumatra - Torgamba	1986-06-22	F	ad (old)	Subur	Port Lympne	1986-10-29	129
12	Malaysia	1986-09-09	F	10 yrs	Dusun	Melaka - Jakarta - Way Kambas	2001-02-07	5265
18	Sumatra - Torgamba	1987-07-21	F	ad	Meranti	Port Lympne	1994-11-04	2663
22	Sumatra - Torgamba	1988-07-08	F	ad	Dalu	Bogor Safari	1993-07-27	1845
24	Sumatra - Bengkulu	1988-07-22	F	ad (old)	Mahato	Los Angeles - Cincinnati	1992-05-10	1388
25	Sumatra - Bengkulu	1988-07-24	F	12 yrs	Barakas	San Diego	1995-02-22	2404
27	Sumatra - Bengkulu	1989-08-26	F	6 yrs	Rapunzel	Los Angeles - New York	2005-12-22	5962
28	Sumatra - Bengkulu	1990-07-23	M	ad	Ipuh - Bagus	San Diego - Cincinnati	2013-02-18	8246
29	Sumatra - Bengkulu	1991-03-06	F	1 yr	Emi	Los Angeles - Cincinnati	2009-09-05	6758
30	Sumatra - Bengkulu	1991-04-18	M	ad	Romi	Bogor Safari	1997-07-06	2271
32	Sumatra - Bengkulu	1991-05-17	F	3 yrs	Bina	Bogor Safari - Way Kambas	alive 10/2019	
33	Sumatra - Bengkulu	1991-06-12	F	8 yrs	Rami	San Diego	1992-05-25	348
34	Sumatra - Bengkulu	1992-01-17	F	4 yrs	Wiwien	Surabaya	1996-11-12	1761
35	Sumatra - Bengkulu	1992-03-20	M	6 yrs	Tanjung	San Diego	1995-02-26	1073
42	Born to 28 + 29	2001-09-13	M		Andalas	Cincinnati - Los Angeles - Way Kambas	alive 10/2019	
43	Born to 28 + 29	2004-07-30	F		Suci	Cincinnati	2014-03-30	3530
45	Sumatra - BBS	2005-09-30	F	3 yrs	Rosa	Way Kambas	alive 10/2019	
46	Sumatra - Way Kambas	2005-09-20	F	5 yrs	Ratu	Way Kambas	alive 10/2019	
44	Born to 28 + 29	2007-04-29	M		Harapan	Cincinnati - Yulee - Los Angeles	alive 10/2019	
50	Born to 42 + 46	2012-06-23	M		Andatu	Way Kambas	alive 10/2019	
58	Born to 42 + 46	2016-05-12	F		Delilah	Way Kambas	alive 06/2019	

SB = Studbook number after Foose (2006) and Oberwemmer (2014). Dates in YYYY-MM-DD format. Last column is number of days living in captivity.



Andatu with his mother Ratu at the SRS



Sumatran rhino captured or kept in Peninsular Malaysia 1984 to 2019.

SB	Capture	Arrival	Sex	Age	Name	Facility	Death	Life in days
01	Malaysia – Selangor	1984-04-30	F	ad	Jeram	Melaka	2002-07-10	6645
02	Malaysia	1984-05-01	M	2 mths	Erong	Melaka	1984-06-01	31
03	Malaysia	1985-04-18	F	n/a	Melintang	Melaka - Bangkok	1986-11-23	584
07	Malaysia – Johor	1986-02-10	F	n/a	Rima	Melaka	2003-04-12	6270
09	Sumatra - Torgamba	1986-06-15	M	n/a	Napangga	Melaka	1987-08-06	417
11	Malaysia – Selangor	1986-07-06	F	ad	Julia	Melaka	1989-12-15	1258
12	Malaysia	1986-09-09	F	10 yrs	Dusun	see Indonesia	2001-02-07	5265
13	Malaysia – Selangor	1987-02-25	F	5 yrs	Panjang	Melaka	2003-11-09	6101
15	Born in Melaka	1987-05-23	F	-	Minah	Melaka	2003-11-16	6021
16	Malaysia – Selangor	1987-07-01	F	7 yrs	Seridelima	Melaka	1988-09-23	450
19	Malaysia	1987-08-26	F	8 yrs	Mas Merah	Melaka	2003-11-17	5927
20	Malaysia	1988-03-26	M	3 yrs	Shah	Melaka	2002-01-19	5047
23	Malaysia - Pahang	1988-07-11	F	10 yrs	Seputih	Melaka	2003-10-28	5587
39	Malaysia	1994-08-24	M	ad	Ara	Melaka	2003-11-08	3363

Sumatran rhino still-born in captivity in Cincinnati and Sumatra

SB	Status	Arrival	Sex	Age	Name	Facility	Death	Days
52	Born dead	1997-10-29				Cincinnati	1997-10-29	0
53	Born dead	1997-11-29				Cincinnati	1997-11-29	0
54	Born dead	1998-06-26				Cincinnati	1998-06-26	0
55	Born dead	1998-09-11				Cincinnati	1998-09-11	0
56	Born dead	2000-01-10				Cincinnati	2000-01-10	0
48	Born dead	2009				Way Kambas	2009	0
49	Born dead	2010				Way Kambas	2010	0

Sumatran rhino captured or kept in Sabah, Malaysia 1987 to 2019.

SB	Capture	Arrival	Sex	Age	Name	Facility	Death	Days
14	Sabah - Kinabatangan	1987-03-28	M	ad	Linbar	Capture site	1987-03-29	1
17	Sabah - Lahad Datu	1987-07-14	M	7 yrs	Tenegang	Sepilok	1992-04-22	1744
21	Sabah	1988-05-24	M	ad	Lokan	Capture site	1988-05-25	1
26	Sabah - Lahad Datu	1989-04-22	F	6 yrs	Lun Parai	Sepilok	2000-08-23	4141
31	Sabah	1991-05-05	M	10 yrs	Tekala	Sepilok	1995-05-08	1464
36	Sabah	1992-08-27	M	10 yrs	Sidom	Sepilok	1997-01-20	1607
37	Sabah	1993-07-07	M	ad	Bulud	Tabin - Released in wild	1993-09-25	
38	Sabah	1993-07-20	M	ad	Tanjung	Sepilok	2006-07-12	4888
40	Sabah – Tabin	1994-06-17	F	ad	Gologob	Sepilok	2014-01-11	7148
41	Sabah	1995-11-22	M	ad	Malbumi	Sepilok	1997-12-04	743
47	Sabah	2008-08-15	M	> 20 yrs	Tam	Tabin	2019-05-27	3951
51	Sabah – Tabin	2011-12-18	F	12 yrs	Puntung	Tabin	2017-06-15	2006
57	Sabah - Danum Valley	2014-03-10	F	15 yrs	Iman	Danum - Tabin	alive 10/2019	

Studbook after Foose (2006) and Oberwemmer (2014). Dates in YYYY-MM-DD format.



Sumatran rhino in the Cincinnati Zoo & Botanical Gardens 1989-2014.

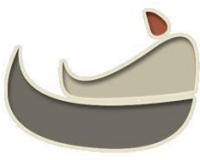
SB	Sex	Name	Arrival	Departure	Days in zoo
24	F	Mahato	1989-06-02	1992-05-10 died	1073
27	F	Rapunzel	1993-02-06	2001-03-13 transfer	2957
28	M	Ipuh (Bagus)	1991-10-25	2013-02-18 died	7787
29	F	Emi (Embam)	1995-08-05	2009-09-05 died	5145
42	M	Andalas	2001-09-13 born	2003-06-20 transfer	645
43	F	Suci	2004-07-30 born	2014-03-30 died	3530
44	M	Harapan	2007-04-29 born	2008-11-11 transfer	562

Sumatran rhino in the Sumatran Rhino Sanctuary, Way Kambas, 1998-2019.

SB	Sex	Name	Arrival	Departure
04	M	Torgamba	1998-01-08 from Port Lympne	2011-04-25 death
12	F	Dusun	1998-01-09 from Jakarta	2001-02-07 death
32	F	Bina	1998-01-08 from Bogor	alive 10/2019
46	F	Ratu	2005-09-20 (wild caught)	alive 10/2019
45	F	Rosa	2005-11-26 (wild caught)	alive 10/2019
42	M	Andalas	2007-02-21 from Los Angeles	alive 10/2019
48			2009 still-born (to 42 + 46)	2009
49			2010 still-born (to 42 + 46)	2010
50	M	Andatu	2012-06-23 (birth to 42 + 46)	alive 10/2019
44	M	Harapan	2015-11-02 from Cincinnati	alive 10/2019
58	F	Delilah	2016-05-12 (birth to 42 + 46)	alive 10/2019



Pahu, the female Sumatran rhinoceros captured in Indonesian Borneo in 2018 (photo WWF Indonesia)



SOME SURPRISES

WHITE RHINO IN SOUTH SUDAN

The white rhinoceros of Central Africa, also called Nile rhino, is deemed to be extinct in the wild. It used to have a relatively restricted range as seen [here](#).

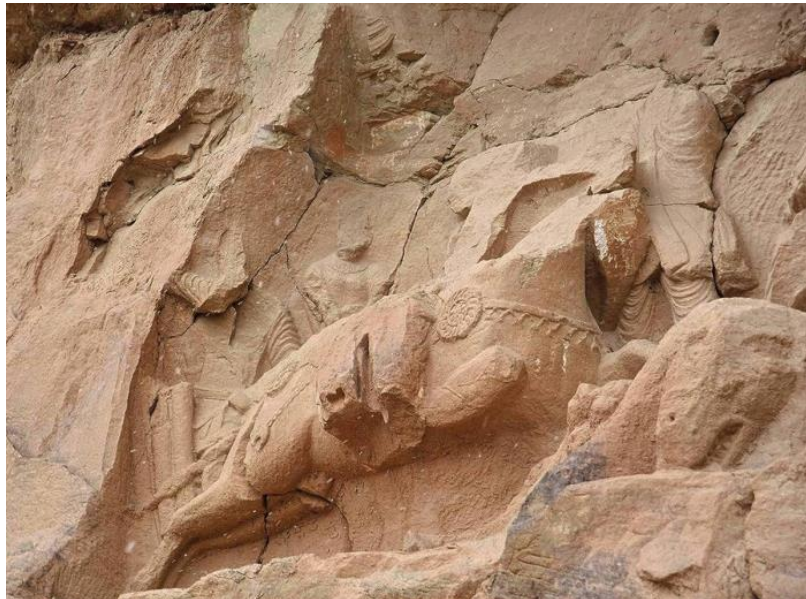
The BBC in conjunction with the South African NGO *Saving the Survivors* has announced an expedition to South Sudan where rumours of rhinos surfaced:

In partnership with South Sudan Trust Ltd, Saving the Survivors will be assisting with the search for remaining Northern White Rhinos in the wild. Having been declared functionally extinct in 2018, evidence of their existence in the wild has now surfaced. With our unique knowledge of rhino conservation, we offer the search the best possible chance of success.

Notwithstanding their size, rhinos are often surprisingly cryptic animals. The expedition will face difficulties, but we wish them every success.

THE RHINOCEROS OF RAG-I-BIBI, AFGHANISTAN

Afghanistan is not really a country where the available historical records would make us to suspect the existence of rhinoceros in the wild.



However, excavations of a rock relief of Sasanian period in Rag-I Bibi, northern Afghanistan (10 km south of Pul-I Khumri, Baghlan Province) exhibits a mounted Sasanian king in full gallop (Shapur I) hunting a pair of Indian rhino. No other reliefs with hunts of rhino elsewhere known. Rhinos are explained by their role as royal game in India, which would signify that the Sasanian empire now reached the lands where rhinos were hunted. The reason for the large-scale depiction of rhino at Rag-I Bibi remains an enigmatic choice.

Levine, E.I.; Plekhov, D., 2019. Reconsidering Rag-i Bibi: Authority and audience in the Sasanian east. *Afghanistan 2* (2): 233-260



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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	2019 March	2019 June	2019 Sept	2019 Dec	2020 March	ANNUAL INCREASE
References	23,365	23,450	23,600	24,230	24,460	+ 1095
PDF files	23,125	23,195	23,410	24,180	24,300	+ 1175
Images	4,444	4,465	4,486	4,530	4,544	+ 100

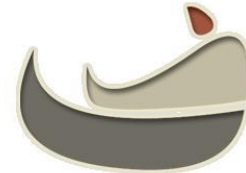
I thank everybody who has helped us by sending copies of books and papers.

All contributions are [acknowledged on the website](#).

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.

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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 2020)

In this quarter (December 2019 to February 2020), we have added 230 new references, to bring the total number of items in the database to **24,460**.

Of these, 24,400 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.

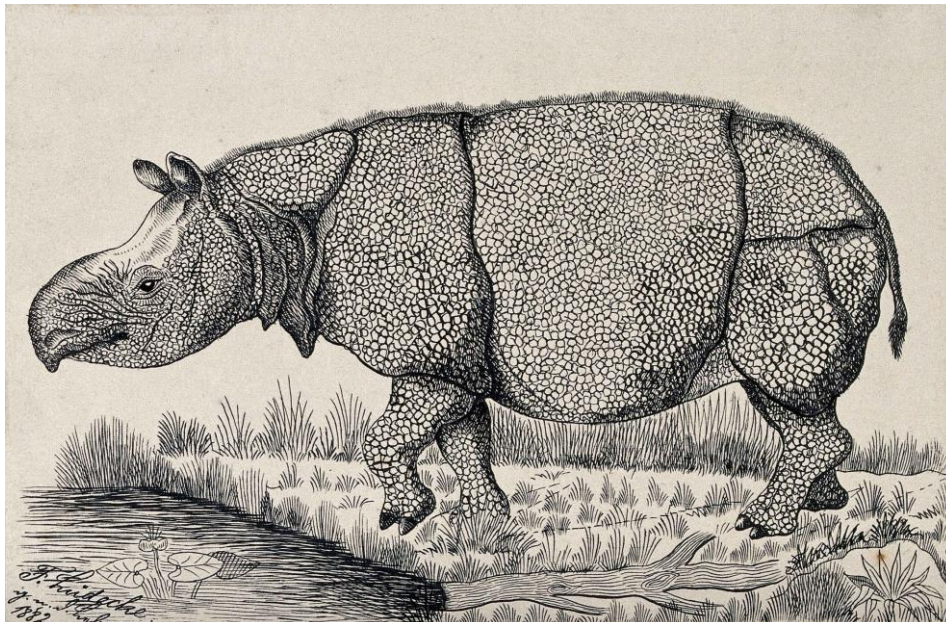
NEW GENERAL PUBLICATIONS

Rookmaaker, L.C., 2019. A sketch of a Javan rhinoceros in Germany in 1882. *Bulette: Mitteilungen aus der Tiergartenbiologie* 7: 134-136, fig. 1.

Rookmaaker, L.C., 2019. Evidence of a rhinoceros in Cork, Ireland, in November 1842. *Journal of the Bartlett Society* 27: 20-22, fig. 1.

Rookmaaker, L.C., 2019. Debunked: the name of the white rhinoceros. *Pachyderm* 60: 131-132.

Rookmaaker, L.C., 2019. Lady Curzon and the establishment of Kaziranga National Park. *Pachyderm* 60: 110-111.



Pen-and-ink sketch of a Javan rhinoceros (*Rhinoceros sondaicus*) signed by F. Lüdecke, 1882 – see Rookmaaker's paper in *Bulette*, 2019.



General – continued

- Amman, K., 2013. Rhino jewellery, the latest Asian fashion fad. *Swara*, July-September 2013: 34-38.
- Dean, C., 2019. 25 years of Save the Rhino. *The Horn* 2019: 2-3.
- Dean, C., 2019. Rhino conservation: where we're at. *The Horn* (Save the Rhino International) 2019: 4-5.
- Etienne, C.; Mallet, C.; Cornette, R.; Houssaye, A., 2020. Influence of mass on tarsus shape variation: a morphometrical investigation among Rhinocerotidae (Mammalia: Perissodactyla). *Biological Journal of the Linnean Society* 2020: <https://doi.org/10.1093/biolinnean/blaa005>
- Hirt, K.; Fuchs, L., 2019. *Ein Nashorn namens Clara*. Zurich, NordSud Verlag.
- International Rhino Keeper Association, 2019. Various notes. *The Crash*, December 2019: 1-12.
- Iperen, M. van, 2019. IOD treatment in practice (presentation on iron storage prevention in rhinoceros). Powerpoint presentation, pp. 1-49.
- Luis de Carvalho, S., 2019. *O Rinoceronte do Rei*. Lisboa, Carvalho, pp. 1-291.
- Mallet, C.; Cornette, R.; Billet, G.; Houssaye, A., 2019. Are Rhinoceros graviportal? Morphofunctional 3D-analysis of modern Rhinoceros limb long bones. *Morphology*: 1 Neushoornstichting, 2019. [Various notes on rhinos, in Dutch]. *Nieuwsbrief*, December 2019.
- Proa, M., 2016. A dichotomous key based on cranial, mandibular and dental anatomy for identifying the skull of living rhinoceroses (Perissodactyla, Rhinocerotidae). Working Paper 2016: 1-11 (unpublished).
- Reynolds, R.J., 2019. The rhinoceros of Ringling Bros. Unpublished story distributed to friends and family, pp. 1-4.
- Robin des Bois, 2020. Notes on rhinoceros poaching. *On the Trail* (Information and analysis bulletin on animal poaching and smuggling) no.25: 75-81 [also in French].
- Spary, E.C., 2019. On the ironic specimen of the unicorn horn in enlightened cabinets. *Journal of Social History* 52 (4): 1033-1060.
- Vilas, M., 2015. *Setecientos millones de rinocerontes* [novel]. Barcelona, Penguin Random House, pp. 1-262.
- Vollrath, F.; Chen, F., 2020. Why discuss fake rhino horns? *Swara*, Jan.-March 2020: 50-55.

NEW PUBLICATIONS ON AFRICAN RHINOS

- Anonymous, 2016. Black rhino to return to Chad National Park. *Swara*, January-March 2016: 13.
- Anonymous, 2016. White rhino's death leaves just three in the world. *Swara*, Jan.-March 2016: 12.
- Anonymous, 2019. DBs the rhino: remembering David Back. *The Horn* 2019: 18.
- Anonymous, 2019. What is rhino horn made of. *The Horn* 2019: 6.
- Balfour, D.; Shaw, J.; Banasiak, N.; Le Roex, N.; Rusch, U.; Emslie, R., 2019. *Concise best practice guidelines for the biological management of African rhino*. Johannesburg, WWF-SA, pp. 1-123.
- Butorova, M.; Zyl, B. van, 2019. Zambia: a day with the dog squad. *The Horn* 2019: 20-21.
- Carpenter, F., 2019. From Exile Medic to ultra-marathoner. *The Horn* 2019: 24.
- Carton-Barber, S.J., 2017. *African game species and subspecies*. Durban, African Wildlife Subspecies Foundation.
- Chapman, L.A.; White, P.C.L., 2019. Stakeholder perspectives on the value and challenges of private rhinoceros ownership in South Africa. *Human Dimensions of Wildlife* 2019: 1-11 - DOI: 10.1080/10871209.2020.1697838.



African Rhinos – continued

- Church, C., 2010. The Aberdares: could its management plan work elsewhere. *Swara*, 34 (2): 16-21.
- Coe, K.K., 2012. Rhino horn: an Asian American's view. *Swara*, October-December 2012: 16.
- Curtis, A., 2001. Uganda's new whites. *Swara*, 24 (3): 4.
- Du Toit, R., 2019. Zimbabwe: New gadgets in our toolbox. *The Horn* 2019: 28.
- Gachanja, M., 2013. Time for action, not words or hand-wringing, on poaching. *Swara*, October-December 2013: 18-19.
- Gaymer, J., 2019. Planning for more rhinos in Kenya. *The Horn* 2019: 25.
- Glenn, I., 2020. The Paris Bloubok (*Hippotragus leucophaeus* (Pallas, 1766) [Bovidae]) and its provenance. *Zoosystema* (Paris) 42 (5): 77-84.
- Goosen, E., 2019. South Africa: managing for morale. *The Horn* 2019: 31.
- Griset, E., 1868. A hunting story, (not to say, fib), being the adventures of Cornelius Cracker, Esq.. In: Hood, T., *The 5 alls: a collection of stories, characes, acrostics, and puzzles*. London, Frederick Warne, pp. 38-39.



Another arrival. Cracker thinks it would be well to put up a notice—"It's full."



The grateful Cracker procures a spade, and fills in the pit, in order to release the rhinoceros.

- Grosse-Woodley, N., 2008. A circle completed. *Swara*, 31 (4): 20-22.
- Grosse-Woodley, N., 2008. Back on track [black rhino in Ngulia]. *Swara*, 31 (2): 52-59.
- Guertler, W.D., 2019. Wer war das - oder: von wem hat dieses Viech seinen Namen? Teil IV. *Bulette: Mitteilungen aus der Tiergartenbiologie* 7: 46-91.
- Hartstone, L., 2011. Fresh surge of poaching hits africa's beleaguered rhinos. *Swara*, April-June 2011: 26-29.
- Hunt, I., 2002. Strange alliance [rhino and cow in Mara]. *Swara*, January-April 2002: 60.
- Isla D, 2019. Rhino stars: Celebrating rhinos. *The Horn* 2019: 11.
- Kasmani, S., 2014. Endangered and guarded from birth - a baby White rhino. *Swara*, October-December 2014: 74-77.
- Kipkorir, K.C.; Angienda, P.O.; Onyango, D.N.; Onyango, P.O., 2019. Antibiotic resistance of *Escherichia coli* from humans and black rhinoceroses in Kenya. *Ecohealth* 2019 (first online): 1-11.



African Rhinos – continued

- Knight, M., 2011. South Africa's rhino success story gets sad new poaching chapter. *Swara*, 2011 (4): 28-32.
- Kretzschmar, P.; Auld, H.; Boag, P.; Ganslosser, U.; Scott, C.; Coeverden de Groot, P.J. van; Courtiol, A., 2019. Mate choice, reproductive success and inbreeding in white rhinoceros: new insights for conservation management. *Evolutionary Applications* 2019: 1-16 - DOI: 10.1111/eva.12894.
- Le Roex, N.; Dreyer, C.; Viljoen, P.; Hofmeyr, M.; Ferreira, S.M., 2019. Seasonal space-use and resource limitation in free-ranging black rhino. *Mammalian Biology* 99: 81-87.



Allwetterzoo Munster, Germany. Southern white rhino mother Natala (studbook 403) with her female calf Vicky (studbook 854) born on 23 December 1986. Photo taken August 1987 by Christopher Brack.

- Lemos-Stein, G., 2019. Running like a rockstar. *The Horn* 2019: 32-33.
- Lippe, D., 2019. Hoffnung für das Nördliche Breitmaulnashorn. *Biologie Unserer Zeit* 49 (6): 396-398.
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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 – May 2019