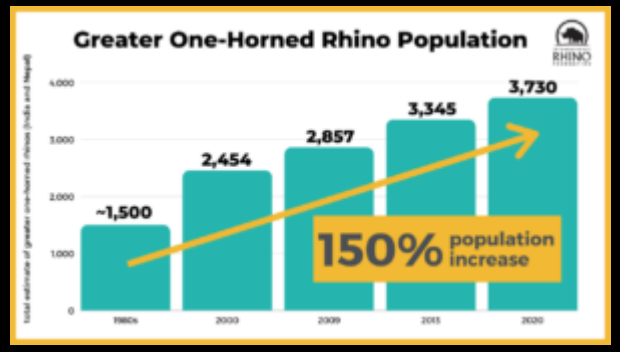
Saat Kritis Menyelamatkan Badak Sumatera

Sunarto | Research Associate, I-SER Universitas Indonesia | macandahan@gmail.com

AURIGA, WEBINAR Ngopini Badak Sumatera, 18 Jan 2022

Badak dunia di Afrika dan India



Sumber: https://rhinos.org/about-rhinos/state-of-the-rhino/

Badak di Indonesia

Sumber: https://rhinos.org/about-rhinos/state-of-the-rhino/

Penurunan populasi dan penyebabnya

- Sumber: Payne & Yoganand 2017

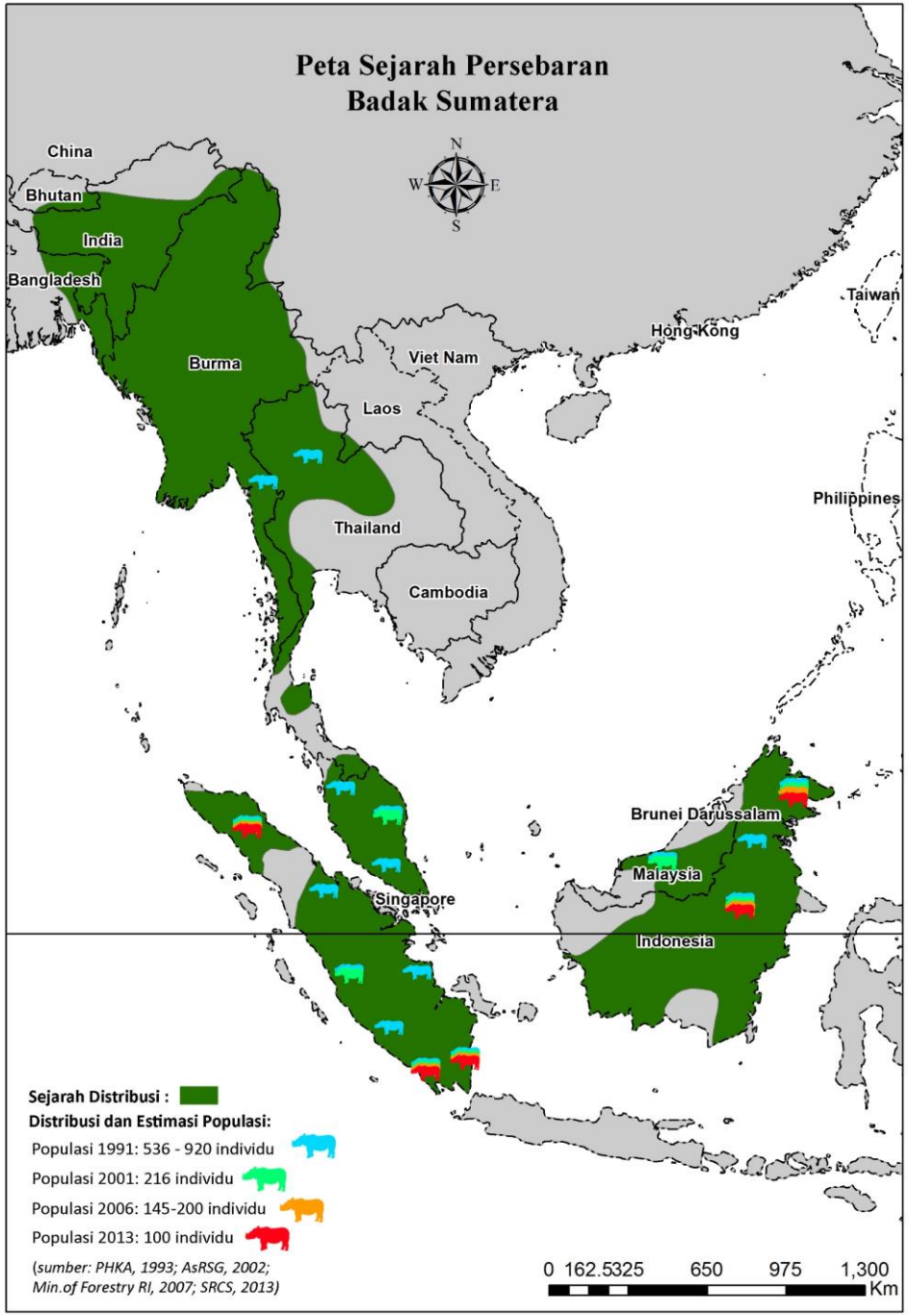
*Table 2.1. Illustration of decline in Dicerorhinus as a result of rising sea level and human hunting**

Years before present	20,000 BP	1,000 BP	80 BP**	Now
Maximum approximate extent of habitat available and used by Dicerorhinus (ha)	800,000,000	300,000,000	100,000,000	500,000[1]
Estimated approximate order of magnitude of total Dicerorhinus numbers	200,000	50,000	2,000	<100
Constraints to unhindered breeding	None	Separation of mainland Asia, Borneo and Sumatra; loss from lowlands inhabited by humans in parts of mainland Asia	Severe; small breeding populations confined to a few large forest areas	Extreme; probably breeding only in a small, remote part of western Leuser Ecosystem and in Way Kambas
Degree of hunting	Very little	Hunting by humans for horns underway	Hunting by humans for horns intense in last remaining concentrations	Low, because of extremely low numbers and presence of protection units
Impact of Allee Effect	None	None	Strong in most areas except parts of Sumatra	Extreme

(* the numbers provided here are the best guesses of the authors, with the intention of demonstrating the orders of magnitude of the changes;

** 80 BP is chosen because late nineteenth century to 1930s was the period when widespread intense hunting appears to have led to the terminal decline that was seen by the late 20th century)

Sebaran & Populasi Badak Sumatera

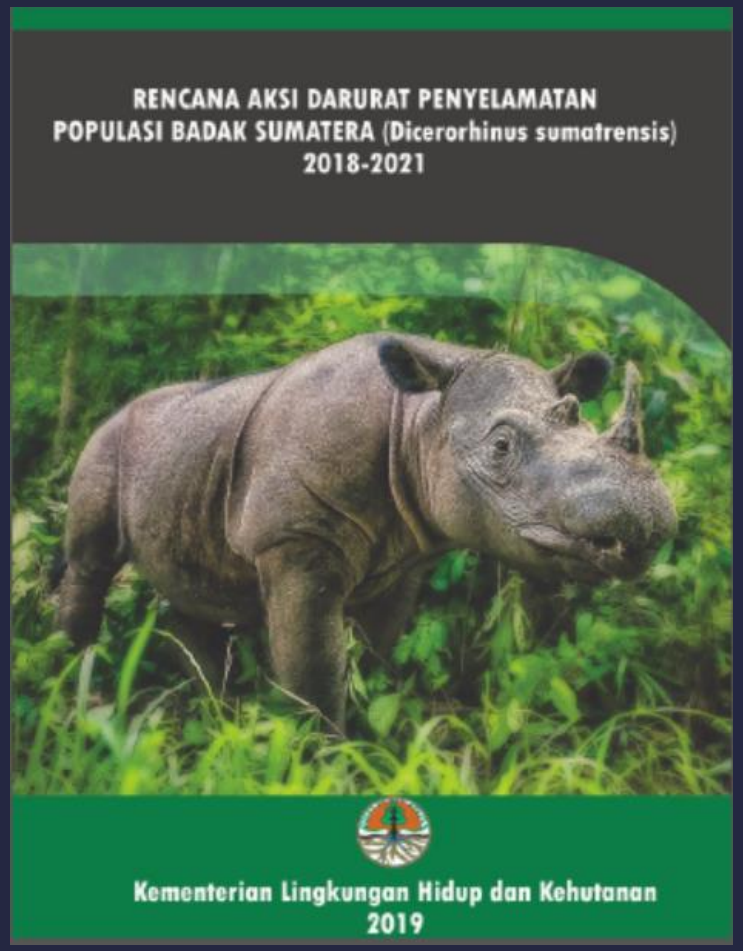


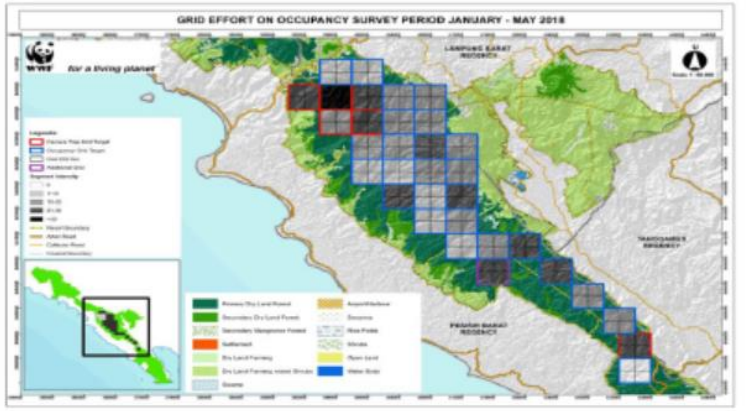
Sebaran & Populasi
Badak Sumatera

1991: 536-960
2001: 216
2006: 145-200
2013: 100
2020: ~70
2022: ?

Survei Populasi

Rencana Aksi Darurat

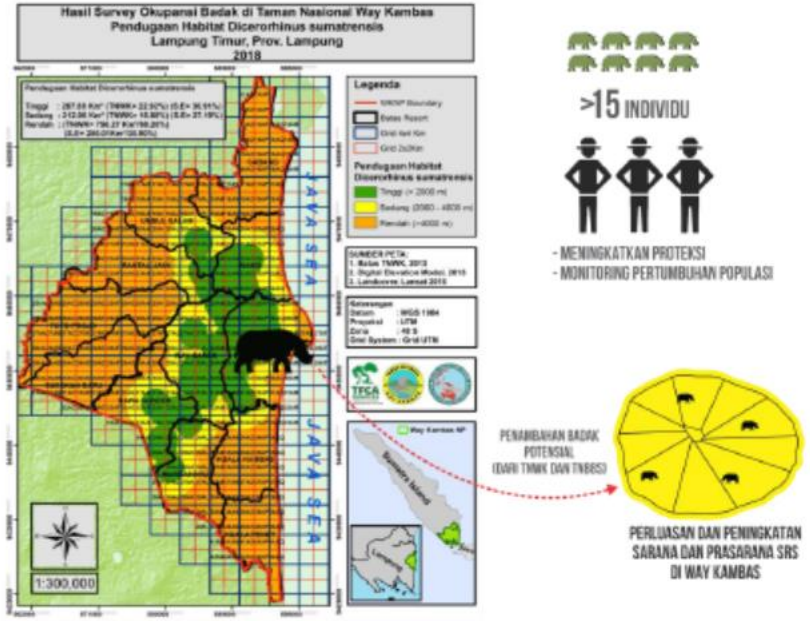




Gambar 3 Skema Penyelamatan badak di Bukit Barisan Selatan

3.5. Penambahan badak potensial untuk kebutuhan pengembang-biakan di SRS, Way Kambas (dari TNBBS dan TNWK).

3.6. Pengembangan teknologi reproduksi berbantuan untuk perkembangbiakan badak.



Gambar 4 Skema Penyelamatan badak di Way Kambas

Transisi Ancaman pada Badak Sumatera

Historical

Hasil Studi Reproduksi & Perkembangan di Lapangan

Table 1. Details of the female Sumatran rhinoceros *Dicerorhinus sumatrensis* captured between 1984 and 2018 in Peninsula Malaysia; Sabah, Borneo, East Malaysia; Sumatra, Indonesia and Kalimantan, Borneo, Indonesia. The information includes (where available) date of capture, date of death, given name, facility where kept, approximate age at time of capture, and presence or absence of pathologies, method used and name of examiner. The table includes data on 3 females born in captivity, as well as data on a 2001 poached female found in Sabah.

Stud Book #	Capture location	Capture date	Name	Age at capture	Captive facilities	Date of death	Evidence of copulation	Evidence of pathology date recorded	Method	Examiner
01	Selangor, Malaysia	30.iv.1984	Jeram	Adult	Melaka, Malaysia	10.vii.2002	Yes	Uterine Tumors & Cysts (1991)	Ultrasound	N. Schaffer
[illegible]	Malaysia	18.iv.1985	Mel[illegible]	N/A	Melaka, Malaysia & Bangkok, Thailand	23.xi.1986	Unknown	No Records		
[illegible]	[illegible]onesia	[illegible].1986	Riau	Adult	Capture Site	23.i.1986	Unknown	No Records		
[illegible]	[illegible]ysia	10.[illegible]	[illegible]	Adult	Melaka, Malaysia	12.iv.2003	Yes	Birthed SB15 (1987); Cysts (2001)	Ultrasound	R. Radcliffe
10	Torgamba, Indonesia	22.vi.1986	Subur	Adult	Port Lympne, UK	29.x.1986	No	Uterine Leiomyoma	Histology	C. Furley
11	[illegible]	[illegible]	[illegible]	Adult	Melaka, Malaysia	15.xii.1989	No	No Pathology	Gross Pathology	Z. Zahari
12	Malaysia	9.ix.1986	Dusun	~10 Yrs.	Melaka, Malaysia, Jakarta & Way Kambas, Indonesia	7.ii.2001	Yes	Chronic Lactation (1992-2001); Irregular Uterus & Ovaries	Ultrasound Histology	N. Schaffer M. Agil
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] Malaysia	9.xi.2003	Yes	Uterine Cysts (1991); Tumors (2002)	Ultrasound	N. Schaffer R. Radcliffe
15	Captive [illegible] Melaka, Malaysia	23.v.1987	Minah	N/A	Melaka, Malaysia	16.xi.2003 15YRS.	Yes	Cysts (2001)	Ultrasound	R. Radcliffe
16	Selangor, Malaysia	1.vii.1987	Seridelima	~7 Yrs.	Melaka, Malaysia	23.ix.1988	No	No Pathology	Gross Pathology	Z. Zahari
18	[illegible]	[illegible]	[illegible]	Adult	Port Lympne, UK	4.xi.1994	No	Uterine Leiomyoma (noted before death in 1994)	Histology	C. Furley
19	Malaysia	26.viii.1987	Mas Merah	~8 Yrs.	Melaka, Malaysia	17.xi.2003	Yes	Few, Small Uterine Tumors & cysts (1991) Same Findings (2001)	Ultrasound	N. Schaffer R. Radcliffe
22	Torgamba, Indonesia	8.vii.1988	Dalu	Adult	Taman Safari, Indonesia	27.vii.1993	Yes	Multiple Corpus Luteum; Enlarged Uterus (1993)	Histology	N. Schaffer M. Agil
23	Pahang, Malaysia	11.vii.1988	Seputih	~10 Yrs.	Melaka, Malaysia	28.x.2003	Yes	Uterine Cysts (1991); Large Tumor (1998); Tumors, Cysts (2002)		
24	Bengkulu, Indonesia	22.vii.1988	Mahato	Juvenile	Los Angeles & Cincinnati, USA	10.v.1992	No	Immature Reproductive Tract (1992)		
25	Bengkulu, Indonesia	24.vii.1988	Barakas	~12 Yrs.	San Diego, USA	22.ii.1995	No	Cystic endometrial hyperplasia (1995)		
26	Lahad Datu, Malaysia	22.iv.1989	Lun Parai	~6 Yrs.	Sepilok, Sabah, Malaysia	23.viii.2000	Yes	Uterine Tumor and cysts (1998) Leiomyoma (2001)		
27	Bengkulu, Indonesia	26.viii.1989	Rapunzel	~6 Yrs.	Los Angeles & New York, USA	22.xii.2005	No	Uterine Tumors and cysts (1994)		
29	Bengkulu, Indonesia	6.iii.1991	Emi	~1 Yr.	Los Angeles & Cincinnati, USA	5.ix.2009	Yes	5 Abortions (1998 – 2001); 3 births (2001, 2004, 2007); Cysts (resolved) (2002)		
32	Bengkulu, Indonesia	17.v.1991	Bina	~3 Yrs.	Taman Safari & Way		Yes	Post productive (2010);	Ultrasound	N. Schaffer

Schaffer

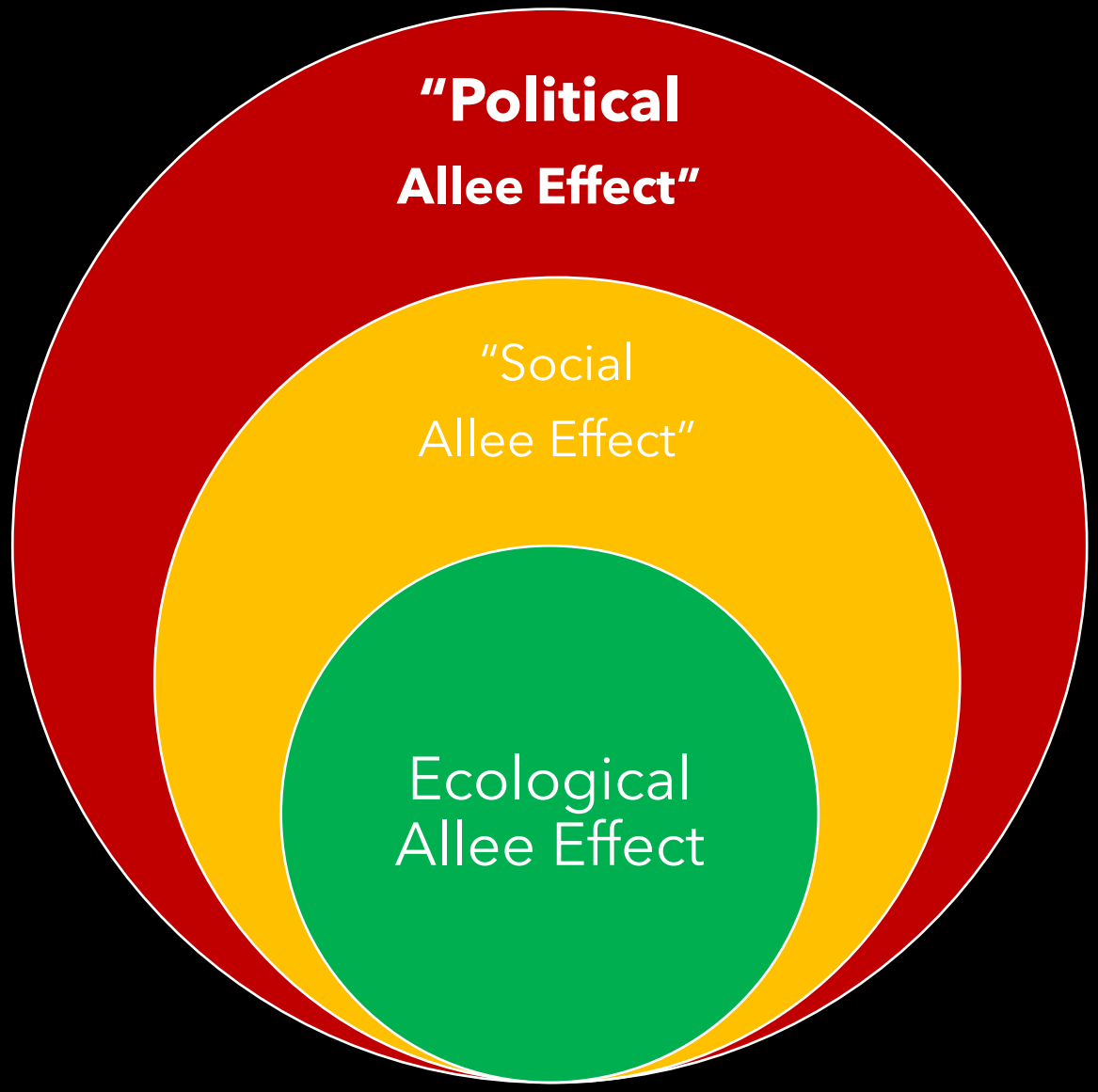
Image 2. A poached wild animal's reproductive tract has extensive pathology. O (ovary), C (cervix), T (tumor). © Nan Schaffer.

Sumber: Schaffer, Agil & Zainuddin 2020

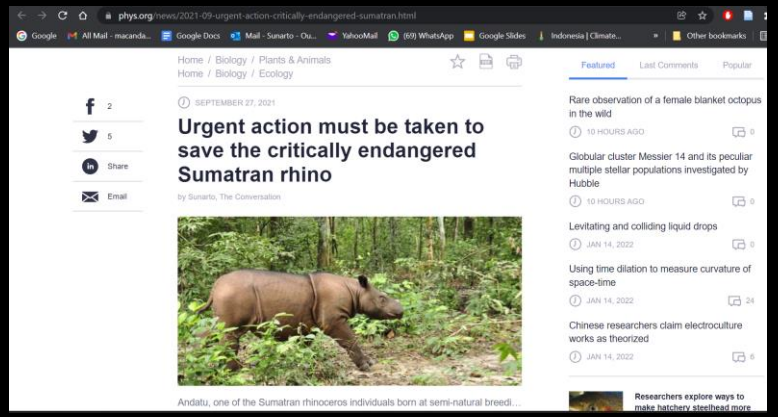
Journal of Threatened Taxa | www.threatenedtaxa.org | 26 February 2020 | 12(3): 15279–15288

Tantangan Penyelamatan Badak Sumatera Saat Ini

Kini



Resources



- Rencana Aksi Darurat Badak Sumatera
- Saving Sumatran rhinos: The new challenge
  https://www.thejakartapost.com/academia/2020/09/21/saving-sumatran-rhinos-the-new-challenge.html
- Reproductive diseases on the recovery of the Sumatran Rhinoceros
  https://threatenedtaxa.org/index.php/JoTT/article/view/5390

Solusi yang diperlukan

- Implementasi tindakan mendesak secara adaptif dan sinergis oleh pemegang mandat dan mitra kunci
- Pemahaman publik terkait perlunya tindakan termasuk resiko yang perlu diambil untuk penyelamatan
- Dukungan sumberdaya, kebijakan dan moril bagi pengambil tindakan dan pelaksana di lapangan