



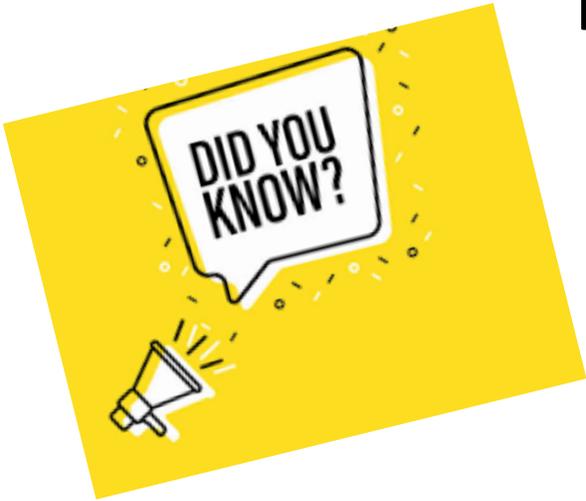
Kondisi Populasi dan Tantangan Konservasi Macan Tutul Jawa

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Konservasi macan tutul jawa berubah ke Endangered?



Perubahan status berdasarkan informasi yang lebih baik dan kualitas data terkait distribusi, populasi, dan ancamannya (Wilianto et al, 2021).

2008

- Estimasi densitas jumlah individu/km² dua taman nasional dan diekstrapolasi ke delapan taman nasional. Estimasi: 363 – 525 individu
- Efektif ukuran populasi adalah 50% dari populasi (Nowell et al, 2007). Estimasi dewasa: <250



[C2a(i)]

2021

- Estimasi densitas
- Kesesuaian habitat (Wibisono, et al., 2018)
- Population viability analysis (PVA) (Traylor-Holzer, et al., 2020)
- Ancaman terhadap populasi (Adhiasto, et al. 2021)



Table 2.1. Summary of the five criteria (A-E) used to evaluate if a taxon belongs in a threatened category (Critically Endangered, Endangered or Vulnerable).

A. Population size reduction. Population reduction (measured over the longer of 10 years or 3 generations) based on any of A1 to A4			
	Critically Endangered	Endangered	Vulnerable
A1	≥ 90%	≥ 70%	≥ 50%
A2, A3 & A4	≥ 80%	≥ 50%	≥ 30%
<p>A1 Population reduction observed, estimated, inferred, or suspected in the past where the causes of the reduction are clearly reversible AND understood AND have ceased.</p> <p>A2 Population reduction observed, estimated, inferred, or suspected in the past where the causes of reduction may not have ceased OR may not be understood OR may not be reversible.</p> <p>A3 Population reduction projected, inferred or suspected to be met in the future (up to a maximum of 100 years) [(a) cannot be used for A3].</p> <p>A4 An observed, estimated, inferred, projected or suspected population reduction where the time period must include both the past and the future (up to a max. of 100 years in future), and where the causes of reduction may not have ceased OR may not be understood OR may not be reversible.</p>	<p>based on any of the following:</p> <p>(a) direct observation [except A3]</p> <p>(b) an index of abundance appropriate to the taxon</p> <p>(c) a decline in area of occupancy (AOO), extent of occurrence (EOO) and/or habitat quality</p> <p>(d) actual or potential levels of exploitation</p> <p>(e) effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites.</p>		
B. Geographic range in the form of either B1 (extent of occurrence) AND/OR B2 (area of occupancy)			
	Critically Endangered	Endangered	Vulnerable
B1. Extent of occurrence (EOO)	< 100 km ²	< 5,000 km ²	< 20,000 km ²
B2. Area of occupancy (AOO)	< 10 km ²	< 500 km ²	< 2,000 km ²
AND at least 2 of the following 3 conditions:			
(a) Severely fragmented OR Number of locations	= 1	≤ 5	≤ 10
(b) Continuing decline observed, estimated, inferred or projected in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) area, extent and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals			
(c) Extreme fluctuations in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) number of locations or subpopulations; (iv) number of mature individuals			

C. Small population size and decline			
	Critically Endangered	Endangered	Vulnerable
Number of mature individuals	< 250	< 2,500	< 10,000
AND at least one of C1 or C2			
C1. An observed, estimated or projected continuing decline of at least (up to a max. of 100 years in future):	25% in 3 years or 1 generation (whichever is longer)	20% in 5 years or 2 generations (whichever is longer)	10% in 10 years or 3 generations (whichever is longer)
C2. An observed, estimated, projected or inferred continuing decline AND at least 1 of the following 3 conditions:			
(a) (i) Number of mature individuals in each subpopulation	≤ 50	≤ 250	≤ 1,000
(ii) % of mature individuals in one subpopulation =	90–100%	95–100%	100%
(b) Extreme fluctuations in the number of mature individuals			
D. Very small or restricted population			
	Critically Endangered	Endangered	Vulnerable
D. Number of mature individuals	< 50	< 250	D1. < 1,000
D2. Only applies to the VU category Restricted area of occupancy or number of locations with a plausible future threat that could drive the taxon to CR or EX in a very short time.	-	-	D2. typically: AOO < 20 km ² or number of locations ≤ 5
E. Quantitative Analysis			
	Critically Endangered	Endangered	Vulnerable
Indicating the probability of extinction in the wild to be:	≥ 50% in 10 years or 3 generations, whichever is longer (100 years max.)	≥ 20% in 20 years or 5 generations, whichever is longer (100 years max.)	≥ 10% in 100 years

1 Use of this summary sheet requires full understanding of the IUCN Red List Categories and Criteria and Guidelines for Using the IUCN Red List Categories and Criteria. Please refer to both documents for explanations of terms and concepts used here.

- Data SCR dari sembilan kawasan konservasi (TN Gunung Gede Pangrango, Gunung Salak, Gunung Malabar, Gunung Sawal, Gunung Guntur-Papandayan, TN Baluran, TN Alas Purwo, TN Meru Betiri, TN Ujung Kulon)

• Tahun 2013 – 2019

• 17 SCR data

• 162 individu

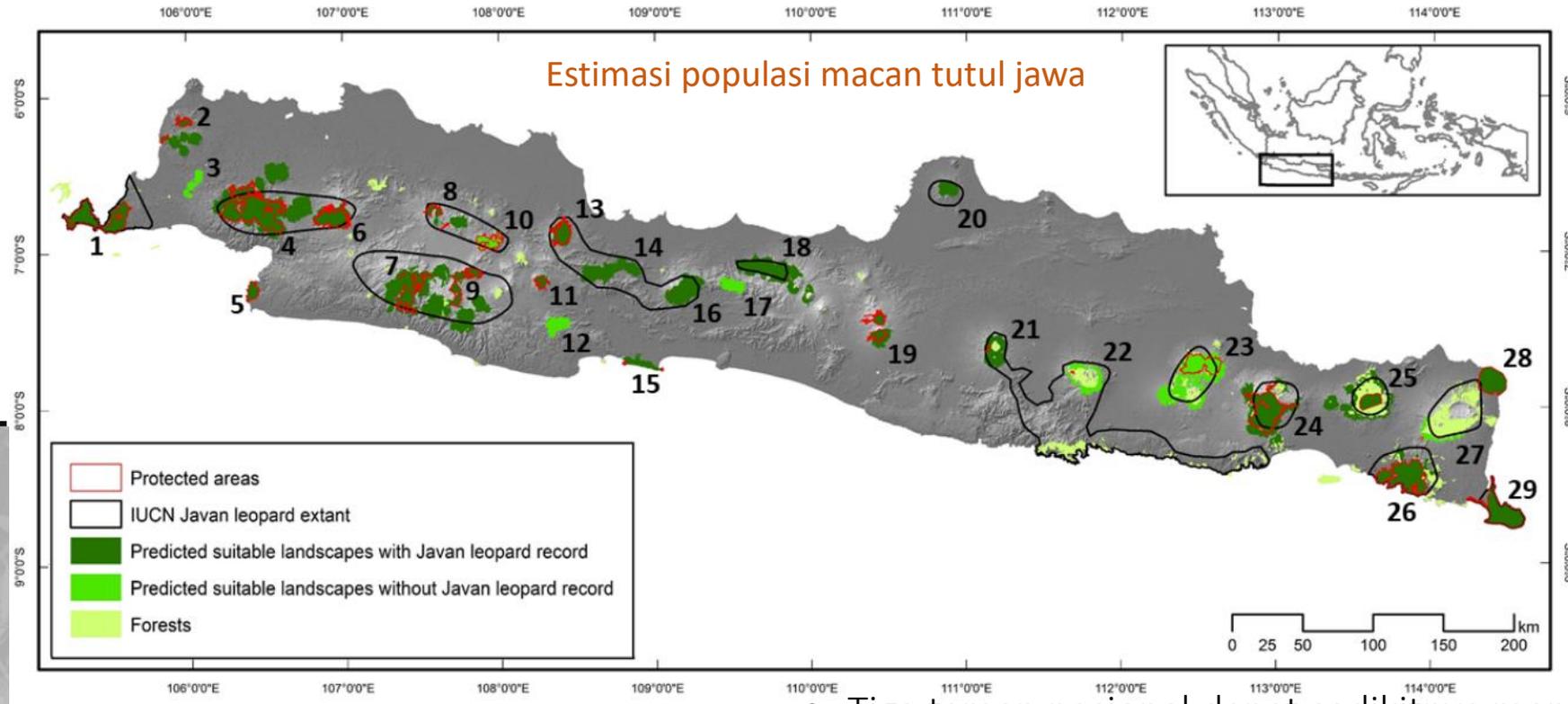


Tren



- Analisa PVA memprediksi laju kepunahan populasi. Subpopulasi di 19 dari 22 lanskap diprediksi mengalami kepunahan 100 tahun ke depan (<50 individu) jika tanpa upaya
- Growth rate di seluruh subpopulasi adalah negatif.

- Hasilnya di ekstrapolasi ke 13 lanskap lainnya.
- Ekstrapolasi dengan pendekatan Hierarchical Cluster Analysis
- Estimasi densitas di lanskap dengan data dan ekstrapolasi:



228 (135 – 429)
dan 91 (53 – 143)

- Estimasi ukuran populasi ke-22 lanskap

319 (188 – 571)

- Tiga taman nasional dapat sedikitnya mendukung 50 individual
- Pada skala lanskap, sembilan lanskap dapat mendukung 50 individu



Tantangan konservasi macan tutul jawa

Isu-isu konservasi macan tutul jawa

Pengelolaan populasi in-situ



- Mengestimasi populasi di habitat yang berpotensi
- Pemantauan populasi yang berkala
- Pemantauan populasi dengan metode yang standar
- Melakukan patroli kawasan dan penegakan hukum

Pengelolaan habitat



- Memperbaiki dan memperkuat fungsi kawasan
- Mempromosikan upaya konservasi dalam perencanaan dan peraturan berskala provinsi
- Memperkuat kolaborasi pemangku Kawasan
- Mengidentifikasi dan menjaga habitat konektivitas

Peningkatan kapasitas



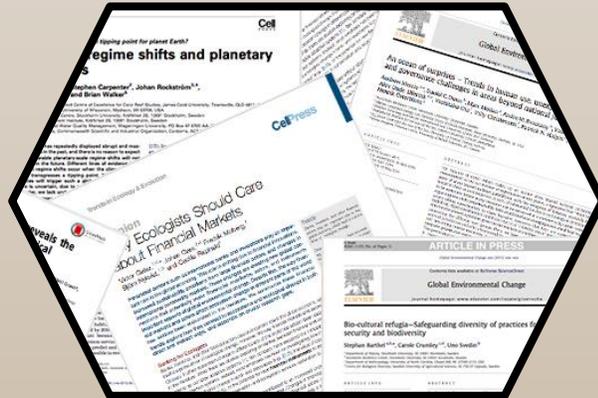
- Estimasi populasi di habitat yang berpotensi
- Pemantauan populasi yang berkala
- Survei populasi dengan metode yang standar
- Patroli Kawasan dan penegakan hukum

Pengelolaan populasi
eksitu



- Mengevaluasi atau mengembangkan dokumen eksitu
- Implementasi program penyadartahuan

Pengelolaan dan
ketersediaan data dan
informasi



- Mengembangkan penelitian yang terintegrasi dan jangka panjang
- Menyediakan website sebagai sumber informasi dan penyadartahuan
- Mempublikasi terkait informasi penelitian

Pendanaan yang
berkelanjutan



- Mengidentifikasi kesempatan pendanaan
- Mengembangkan rencana pendanaan
- Mengelola *trust fund*

Daftar Pustaka

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