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Javan Leopard Workshop Report

JAVAN LEOPARD (*Panthera pardus melas*)

Indonesia Safari Park (Cisarua Bogor West Java)



Title: **Workshop Survey JAVAN LEOPARD (*Panthera pardus melas*)**

Date: 2th-4th June 2022

Place: Taman Safari Indonesia (Cisarua Bogor)

Description:

Speakers	MC	Minutes
1. Dr. Dede Aulia Rahman 2. Hariyo T Wibisono	1. Elena	1. Herry Trisna 2. Ai Rohaeti



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Tentative Agenda of Javan Leopard (*Panthera pardus melas*) Workshop

NO	TIME (WIB)	EVENT	DESCRIPTION
Thursday /2 June 2022			
	14.00 - 19.30	Registration	Committee Participants
	20.00 - 21.30	<ol style="list-style-type: none"> 1. Opening 2. Recitation of Prayer 3. Singing the Indonesia Raya/Mars Rimbawan Song 4. Speech by the Head of Ujung Kulon National Park (Ir. Anggodo, M.M) 5. Speech by the Director of Taman Safari Indonesia 6. Speech by Cerita Alam Nusantara 7. Speech by the Director of Species Biodiversity and Genetic Conservation (KKHSG) as well as 8. official opening of the event 	All Committee Participants Head of TNUK Director of Taman Safari Indonesia Cerita Alam Nusantara Director of Species and Genetic Biodiversity Conservation
Friday / 3 June 2022			
	08.00 - 09.00	Presentation of Data Analysis Results of Animal Monitoring in Ujungkulon NP (Rhino, Javan leopard, etc.)	(Head ofPTN Region II Handeuleum Section)
	09.00 – 10.15	Explanation of Javan leopard monitoring activities in other NP (National Park) (Alas Purwo NP, Baluran NP, Meru Metiri NP, Gunung HalimunSalak NP, Gunung Gede NP Pangrango)	BTN Alas Purwo, etc.
	10.15 – 10.30	Coffee break	Committee Participants
	10.30 – 12.00	Discussion and Explanation by Speaker	FacilitatorSpeakers Participants
	12.00 - 13.30	Break (Lunch)	
	13.30 – 15.15	Discussion and Explanation by Speakers	Facilitator Speakers Participants
	15.15 – 15.30	Coffee break	Committee Participants
	13.30 – 18.00	Summary of Workshop Results	Facilitator Speakers Participants
Saturday / 4 June 2022			
	08.00 – 11.00	Eco Amazing Trail and Outbound (Safari track 3km-Outbound-Curug Jaksa) participants will be divided into two groups	Committee Participants
	11.00 – 12.00	Closing at the Curug Parking Pavilion	Committee Participants
	12.00 – 13.00	Break (Lunch)	Committee Participants



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Attendance List

Workshop On Survey Results of the Javan Leopard (*Panthera Pardus Melas*)
at Taman Safari Indonesia (Bogor)

Hari/Tanggal : Sabtu , 4 Juni 2022.

No.	Nama	Instansi / Jabatan	No Hp	Tanda Tangan
1	Wahyuni M	BTN - ALOS PURWO.	085236594883	
2	Tika	CAN	087886460804	
3.	BOGIE	CAN	08161971016	
4	ELENA	CAN	0816843200	
5.	CHIKA	CAN	0811828542	
6.	Diki MC	FORMATA	082115167710	
7	Anggoro	BTNUK	081247349017	
8	Asp Tasya H	TRUK	081584373914	
9	WONGKES	TNUK	083884846239	
10	Agus T	TNUK	085872047898	
11.	Dani	TNUK	087871537258	
12.	Air	TNUK	081910902697	
13.	Indrawan	OFORA	087876995609	
14	Utang Acep	BTNUK	081316853337	
15	Daryan	TNUK	081911234757	
16	Ade Himat	OFORA		
17.	Rommy. m	Bioparc Conservation	081248221999	
18	Mu Rahman	BKSDA JAL	081352490552	
19	Wahyuni R	BKSDA JAL	085272851981	
20	HENRPA G	BRIN	0811103464	
21	Rois Mahmud	ALERT	08218589685	
22	Qiri	Alert	08589490031	
23	Dede Aulia R	IPB (KSTH)	081293229500	
24	Sharmy Prastika	TSI	082122113751	



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Attendance List
Workshop On Survey Results of the Javan Leopard (Panthera Pardus Melas)
at Taman Safari Indonesia (Bogor)

No.	Nama	Instansi / Jabatan	No Hp	Tanda Tangan
25	Susibuwati	PKBSI	0821.12390011	
26	Andi Markis K	Dit. FKLTS	085320959101	
27	Herry T. A	TNLUK	08187022009	
28	Andi Irawan	BESUDA Jabar	08128813737	
29	Tody Sumampou	PKBSI / ISI	08161820571	
30	TANTER SITORUS	CAW	881284414223	
31	Ali EP 2P	CAW	087877825666	
32	Rudi Sutedy	CAW	0818774739	
33	Yonethan	PKBSI	081911368685	
34	Ang Nival.	BTUUK	085210208888	
35	Giri	Angly	081289734666	
36	HARYO T. WISMONO	SINTAS	08121099557	
37	SANDI	SINTAS	08568936879	
38	Nur Kholy	Belai TNMB	082125352532	
39	Drogat Dwi H	Dit. KKHST	085644027045	
40.	Daryan	TNLUK	08191123477	
41.	M. Iqbal	BTU. Baleran	08525725087	
42.	Badiyal	KKHST	087809036610	
43.	Erwik. W.		087880686508	
44.	Desa Satka C	KKHST	0812947477	
45.	Anton Anu	Konternat Indonesia	08129363308	
46.	Lucei Turnayya	ISITNOSP	085882900033	

Mengetahui



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Presentation of Javan Leopard Monitoring Results in Ujung Kulon National Park

A. Potential of Javan Leopard (*Panthera pardus melas*) in TNUK

Background:

Presentation of Animal Monitoring Data Analysis Results in TNUK (Rhinos, Javan leopards and other Animals), based on data and information, Javan leopards in Ujung Kulon National Park are still few and not well managed. In TNUK, several Javan leopard clips were obtained from the results of the installation of Javan Rhino monitoring camera traps in 2011 until now.

Purposes:

1. Acknowledge the approximate population size;
2. Acknowledge the distribution;
3. Acknowledge the use of space and time;
4. Acknowledge Interspecific interaction patterns

Data collection:

- Derived from camera traps of Javan rhino monitoring activities with the number of cameras installed \pm 135 units;
- The number of Javan leopard clips recorded throughout 2021 is \pm 650 clips.

Analysis that has been done:

- Camera trap data from 2013;
- Study area of 323.25 km² (6°45' N, 105°20' E);
- Using maximum entropy (MaxEnt) modeling to investigate seasonal environmental factors and Spatial Explicit Capture-Recapture (SECR) method for species;
- The density of Javan Leopards (*Panthera pardus melas*) in Ujung Kulon National Park is in the range of 11-13 individuals/100 km², with a population of between 35 - 41 individuals (Rahman et al. 2018).

Estimated population size of Javan leopards

Javan Leopard (*Panthera pardus melas*) data in 2021 (N-Mixture analysis method using Presence software):

- ✓ The best estimate of population density for the 16 km² unit of analysis was 2 individuals in the range between 1 and 2 individuals with a standard error of 0.28.
- ✓ If extrapolated to a 100 km² unit of analysis, the best estimate is 11 individuals in the range between 8 individuals - 15 individuals with a standard error of 2.
- ✓ The best estimate of the Javan leopard population in the Ujung Kulon peninsula area is 48 individuals in the range of 35 to 66 individuals with a standard error of 8

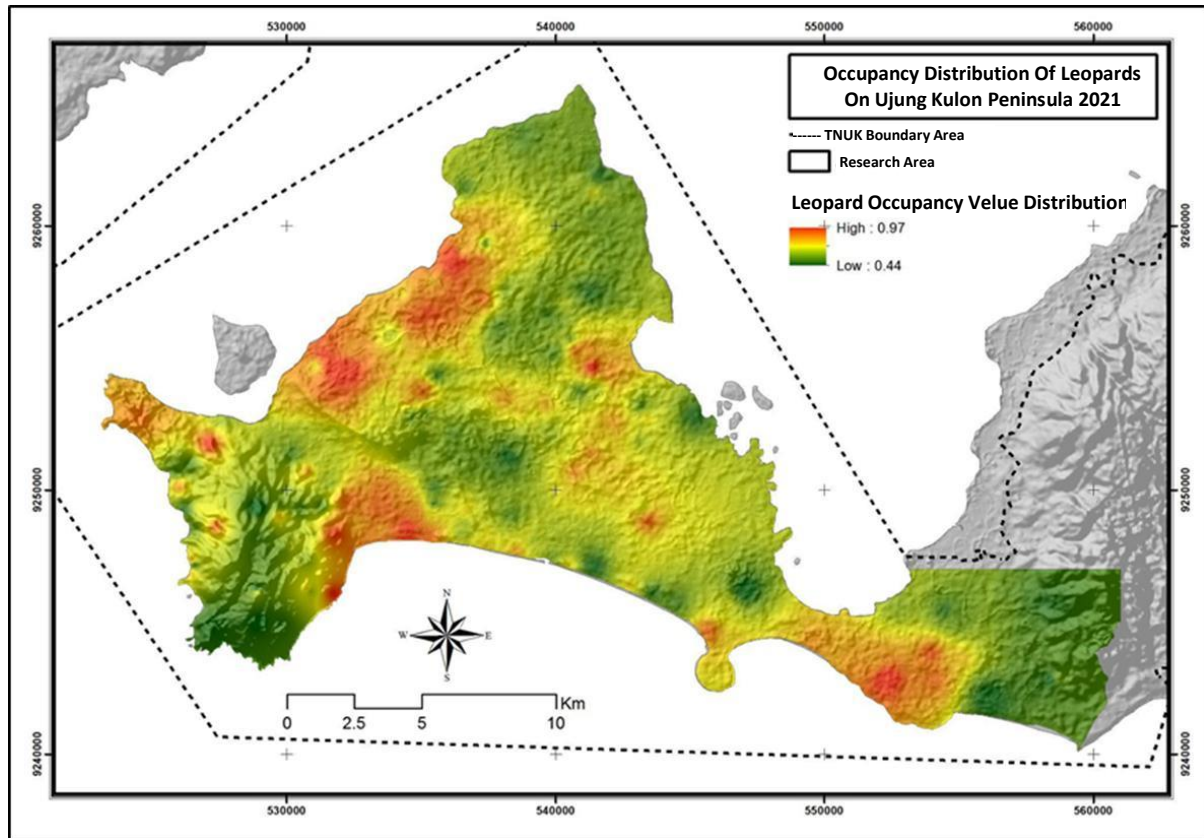


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Unit of Analysis	Estimation	SE	Lower Limit CI	Upper Limit CI
Density/ 16 km ²	2	0.28	1	2
Density/ 100 km ² (Exploration)	11	2	8	15
Population at Ujung Kulon Peninsula	48	8	35	66

Occupancy distribution map of the Javan Leopard on the Ujung Kulon Peninsula 2021



Space Use Pattern

Javan leopard (*Panthera pardus melas*) response to habitat variables can be seen from the beta value of occupancy analysis results.

- ✓ The resulting beta values indicate that Javan leopards respond positively to the variables of deer density and distance from the river.
- ✓ Deer are the dominant prey for Javan leopards and Javan leopards are not dependent on streams for their drinking needs and may be content with small puddles of water.
- ✓ Beta value for $\psi \sim$ density of deer findings was 0.351 and $\psi \sim$ distance from river was 0.528.



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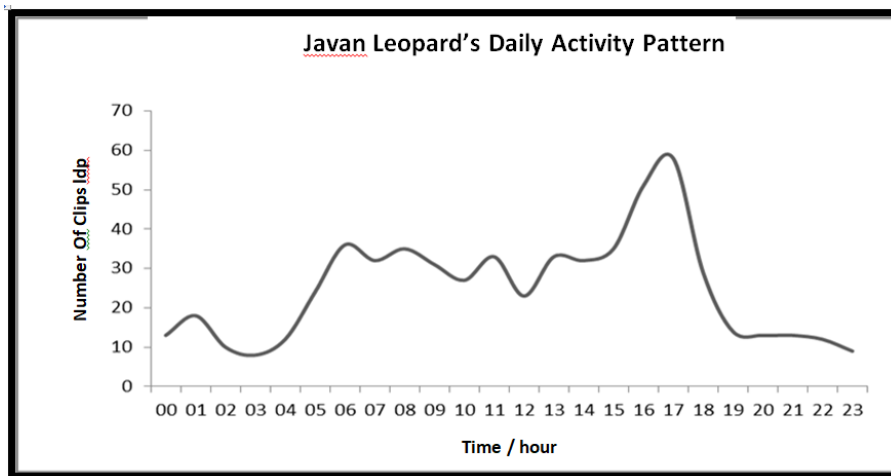
Beta Value of Javan Javan leopard Response to Habitat Variables

Parameter	Estimation	Error Standard
Occupancy Intercept	0.503	0.217
Occupancy – Density Finding of Deers	0.351	0.171
Occupancy – River Distancing	0.528	0.248
Detection Intercept Probability	0.159	0.007

Time Use Pattern

The results of the analysis of daily movement patterns of Javan leopards on the Ujung Kulon peninsula show that Javan Javan leopards are mostly active during the day (diurnal).

Javan Javan leopard activity patterns that are more dominant during the day indicate that Javan Javan leopards move actively following the activity patterns of prey animals such as wild boar, deer, bulls and deer.





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Interspecific Interaction Patterns

The results of the analysis of camera trap data in 2021 show signs that do not yet point to Javan leopards as apex predators. Javan Javan leopard use of space and time still overlaps quite a lot with other predators, namely coyote/ ajag (81.1% overlap in space and 68% overlap in time) and jungle cat(74% overlap in space and 56% overlap in time).

Use Of Space Between <u>Javan</u> Leopards With Other Species		
Others Species	Leopards	
	Σ Overlapping Locations	% Locations
<u>Javan</u> Coyote/ Ajag	43	81.1
Weasel	91	74.0
Leopard Cat/ kucing kuwuk	44	35.8
<u>Javan</u> Rhino	72	58.5
Deer	109	88.6
Mouse Deer	102	74.8
Wild Boar	118	63.4





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Formulation of the Javan Javan leopard Survey Workshop (*Panthera pardus melas*) June 2 to 4, 2022 at Taman Safari Indonesia Cisarua, Bogor

Today, Friday, June 3, 2022, at Taman Safari Indonesia, Cisarua Bogor, a Workshop on Javan Javan leopard Survey (*Panthera pardus melas*) was held with the presentation of Javan Javan leopard survey activities in several Representative agencies of Ministry of Environment & Forestry such as Gunung Gede Pangrango Nat.Park, Ujung Kulon Nat.Park, Alas Purwo Nat.Park, Baluran Nat.Park, Meru Betiri Nat.Park, and Gunung Halimun Salak Nat.Park, and discussed by Speakers from:

- a. BRIN 'Javan Javan leopard Conservation Challenges'
 - b. Bogor Agriculture University (IPB) 'secondary catch (Bycatch) Javan Javan leopard'
 - c. Yayasan SINTAS Indonesia 'Surveillance Camera Survey'
1. Javan Javan leopard surveys have been conducted in Representative agencies of Ministry of Environment & Forestry that are the distribution of Javan Javan leopards using the same methods and analyzing the results. There are lessons learned on the application of survey methods for Representative agencies of Ministry of Environment & Forestry that produce Javan Javan leopard data from by catch.
 2. Javan Javan leopard survey standards that have been carried out by Representative agencies of Ministry of Environment & Forestry need to be made in writing in the form of a guidebook as a guide for Javan Javan leopard survey implementers. Preparation will be coordinated by Formata
 3. All animal encounter data, especially Javan leopards, needs to be updated and inputted into the SIDAK platform. Further analysis of Javan leopard survey results conducted by Representative agencies of Ministry of Environment & Forestry needs to be integrated into a better information system as policy material for species management.
 4. Javan leopard survey activities in Ujung Kulon National Park are currently not the main target because Javan leopard data generated from survey activities for Javan rhinos, so the data analysis produced is currently only in the form of distribution. To be able to contribute data on Javan Javan leopards in Java, Ujung Kulon National Park needs to identify individuals to obtain density data.
 5. Formata will play an active role in assisting Javan leopard survey activities in the Representative agencies of Ministry of Environment & Forestry.



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TERMS OF REFERENCE

WORKSHOP ON SURVEY RESULTS OF THE JAVAN LEOPARD (*Panthera Pardus Melas*) AT TAMAN SAFARI INDONESIA

I. Introduction

A. Background

In addition to the Javan Rhinoceros (*Rhinoceros sondaicus*), Ujung Kulon National Park has the potential for other large mammal species including the Javan leopard (*Panthera pardus melas*) which is a member of the big cat family, a relative of the Javan Tiger (*Panthera tigris sondaica*) which has been declared extinct.

As the top predator in the food chain, the presence of the Javan leopard is essential in maintaining the health of the complex Ujung Kulon National Park ecosystem so that the functions and benefits of the Ujung Kulon National Park area can be enjoyed sustainably. The presence of the Javan leopard in the Ujung Kulon National Park area plays an important role in the sustainability of a healthy ecosystem where the wildlife species is a top predator in the food chain and a priority wildlife species for Ujung Kulon National Park based on the Decree of the Director General of Natural Resources and Ecosystem Conservation Number: SK. 180/IV-KKH/2015 concerning the Determination of Twenty-Five Priority Endangered Animals to Increase Their Population by 10% in 2015-2019.

Ujung Kulon National Park has been intensively monitoring the Javan rhino population using camera traps on the Ujung Kulon peninsula since 2011. Monitoring wildlife using camera traps allows the detection of animals other than the target animal. Javan leopards are one of the non-target animals (Javan rhinos) that have been captured in the monitoring of the Javan rhino population on the Ujung Kulon peninsula. The large number of spotted Javan leopard camera captures from the Javan rhino population monitoring activities has not been matched by adequate data management and analysis to obtain a picture of Javan leopard population dynamics on the Ujung Kulon Peninsula due to limited methodological capacity in analyzing it. There are very few scientific publications of the Javan leopard data, including the publication of Rahman (2018) which only analyzed the 2013 data.

The limitations of data analysis in Ujung Kulon National Park on Javan leopard data has also meant that data integration with data from other locations in Java has not yet occurred. Javan leopard conservation efforts require a holistic understanding of the condition of Javan leopard populations in all Javan leopard habitat locations. A holistic understanding is only possible through integrated analysis of data from all Javan leopard habitat sites and data integration can only be done if data from all sites are obtained using the same survey and analysis methodologies. These are the considerations for the need to integrate data and monitoring methodologies for the Javan leopard population as a basis for future Javan leopard population management planning towards a sustainable Javan leopard population condition.



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B. Purposes

The objectives of the Javan leopard survey results workshop are as follows:

1. Sharing knowledge about the potential of the Javan Javan leopard in Representative agencies of Ministry of Environment & Forestry
2. Initiation of standardization of survey methods and data analysis of Javan Javan leopard
3. Recommendation on Javan Javan leopard management especially in Ujung Kulon National Park area .



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II. Activity Implementation Method

The implementation of the Javan leopard workshop activities was carried out with the following agenda:

- a. Presentation of the implementation of the results of the data analysis of the Javan leopard in Ujung Kulon National Park (based on the results of monitoring records of Javan rhinos with camera traps).
- b. Presentation of Javan leopard monitoring survey results in other National Park Representative agencies of Ministry of Environment & Forestry that have conducted Javan leopard monitoring (Alas Purwo National Park, Baluran National Park, Meru Metiri National Park, Gunung Halimun Salak National Park, Gunung Gede Pangrango National Park).
- c. Presentation of survey experience and data analysis from resource persons
- d. Discussion with resource persons, facilitators and participants regarding the potential, survey methods and recommendations for managing the Javan leopard.

III. Cost, Time and Place

- a. The costs charged are cost sharing, derived from the facilitation support of partners including Taman Safari Indonesia, Cerita Alam Nusantara, Bioparc Zoo De Doue La Fontaine, OFORA Foundation and DIPA of each participant.
- b. Implementation time on Thursday to Saturday, June 2 to 4, 2022 at Safari Resort Hotel, Jalan Kapten Harun Kabir No.724, Cibeureum-Cisarua, Bogor West Java.

IV. Participants, Speakers and Facilitator

- a. Participants came from the Directorate of Conservation of biodiversity and genetic resources, Directorate of Area Planning, Directorate of Ecosystem Management and Recovery, Representative agencies of Ministry of Environment & Forestry which has the potential of Javan leopards, Bioparc Zoo De Doue La Fontaine, OFORA Foundation, Academics, and NGOs etc.
- b. Speakers from:
 - 1 (one) person from Bogor Agriculture University (IPB)
 - 1 (one) person from Yayasan Sintas Indonesia
- c. Facilitator 1 (one) person

V. Closing

By holding the Javan leopard workshop, it is expected that all participants will actively synergize in formulating the potential of Javan leopards, survey methods and recommendations for Javan leopard management. So that the expected goals can be achieved.

Bogor, July 2022

Executive Director of
OFORA Foundation



OFORA Ofat Sofwatuddin, Sip



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DOCUMENTATIONS





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