

## INTERAKSI HARIMAU SUMATERA DAN SATWA MANGSA DI TAMAN NASIONAL TESSO NILO, RIAU

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### Abstrak

Taman nasional Tesso Nilo merupakan habitat harimau sumatera. Perpindahan populasi harimau sumatera ke wilayah lain kemungkinan besar tidak dapat terjadi. Kondisi ini memaksa harimau sumatera bertahan hidup dengan sumber daya yang tersisa dan tersedia di Tesso Nilo. Mangsa merupakan sumber daya penting bagi harimau Sumatera. Penelitian tentang interaksi dapat memberikan gambaran tentang hubungan harimau sumatera dengan sumberdaya yang tersedia. Penelitian ini bertujuan untuk mengetahui interaksi yang terjadi antara individu harimau sumatera dan individu harimau sumatera dengan calon mangsa.

Penelitian menggunakan data monitoring populasi harimau sumatera dengan alat bantu camera-trap tahun 2005, 2007, 2008, dan 2011. Data yang digunakan dalam penelitian ini adalah data keberadaan dan waktu tertangkap harimau sumatera dan satwa mangsa. Analisis tumpang tindih distribusi spasial menggunakan model *two-species co-occurrence* dengan *software Presence*. Analisis tumpang tindih waktu menggunakan *package overlap* dengan *software R-studio*.

Hasil penelitian ini menunjukkan adanya tumpang tindih distribusi spasial harimau sumatera. Tumpang tindih yang terjadi antara individu jantan terkait dengan perebutan sumber daya, individu jantan dan betina terkait dengan aktivitas kawin, sedangkan antar individu betina tidak tumpang tindih. Perubahan tutupan lahan diperkirakan menyebabkan peningkatan jumlah interaksi tumpang tindih antar harimau sumatera. Tumpang tindih distribusi spasial dan waktu aktif menunjukkan bahwa semua spesies mangsa tumpang tindih dengan harimau sumatera. Jenis monyet dan kancil memiliki jumlah interaksi tumpang tindih tertinggi. Kedua spesies tersebut tidak memiliki potensi untuk menjadi mangsa aktual tetapi memiliki interaksi yang kuat dengan harimau sumatera. Jenis rusa dan babi hutan berpotensi kuat untuk menjadi mangsa aktual dan mengalami tumpang tindih dengan harimau sumatera.

Kata kunci: harimau sumatera, satwa mangsa, tumpang tindih, interaksi, persaingan, pemangsaan.

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## **Interaction of sumatran tigers and prey in Tesso Nilo National Park, Riau**

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### **Abstract**

Among protected areas in Central Sumatra, Tesso Nilo National Park play important roles for the habitat of Sumatran tigers. However, relative isolation of the park from nearby protected areas, has caused dispersal among sub-populations near Tesso Nilo National Park is likely to occur very rare and caused Sumatran tigers must survive within remaining natural habitats in the park. As predator, prey is an important resource for Sumatran tigers, and the prey depends on the quality of the habitat, forest cover reduction in the park might affect the relationship between tigers and their prey. This study aims to find out the interactions that occur between Sumatran tigers and their prey with the remained habitat of Tesso Nilo National Park.

This study utilized Sumatran tiger population monitoring data using camera-traps in 2005, 2007, 2008, and 2011 from the Tesso Nilo National Park. The data used in the study is data on the presence and time captured by Sumatran tigers and prey animals. Analysis of spatial distribution overlap using two species occurrence model was performed with Presence software. Further analysis on the time overlap was carried out using overlap packages of R-studio software.

The results of this study have shown that spatial overlap among males in the park existed which is uncommon for tigers as consequence of reduced habitat and competition among males. In addition, this study did not find overlap among females which is also rare for tigers, whereas male-female overlap due to mating is a common phenomenon. This study confirms the common knowledge on the spatial and temporal overlap between tigers and its prey as consequence of predator-prey relationship. However, the overlap was highest between tigers and primates as well as mouse deer which indicates reduces bigger prey availability. An increasing rate of land-cover change was happening during this study which might explain anomaly in the relationship among tigers and interaction between tigers and prey.

**Keywords :** Sumatran tiger, prey animal, overlap, interaction, competion, predation.

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