

PENGARUH GANGGUAN ANTROPOGENIK TERHADAP POPULASI RUSA TIMOR (*Rusa timorensis* de Blainville 1822) DI SPTN WILAYAH I BEKOL TAMAN NASIONAL BALURAN

Sundari Marsudi, Sandy Nurvianto, Lies Rahayu Wijayanti Faida

Intisari

Rusa timor merupakan satwa yang dilindungi oleh pemerintah dan masuk kategori rentan (*vulnerable*) dalam IUCN *Redlist*. Hal tersebut dikarenakan adanya penurunan populasi akibat dari perburuan dan hilangnya habitat. Gangguan antropogenik mempengaruhi dinamika populasi jenis rusa di seluruh dunia. Taman Nasional Baluran merupakan salah satu habitat rusa timor yang terdapat aktivitas antropogenik berupa pemanenan, *logging*, penggembalaan, perburuan, dan ekowisata. Oleh karena itu, penelitian ini dilakukan untuk mengidentifikasi pengaruh gangguan antropogenik terhadap populasi rusa timor di SPTN Wilayah I Bekol TNB.

Metode *continuous strip transect* digunakan untuk melakukan survei populasi rusa timor. Faktor aktivitas antropogenik menggunakan data *present* dan *absent*. Faktor lingkungan makro diperoleh dengan menggunakan analisis spasial peta tematik TNB, sedangkan data habitat mikro dilakukan pengukuran langsung dilapangan. GLM (*Generalized Linera Model*) dengan pendekatan *Poisson error distribution* digunakan untuk mengidentifikasi pengaruh gangguan antropogenik terhadap populasi rusa.

Hasil analisis menunjukkan, faktor aktivitas antropogenik terhadap populasi rusa di SPTN Wilayah I Bekol TNB pada musim kemarau dipengaruhi secara negatif oleh kegiatan pemanenan (-1.9181 ± 0.5877 , $P < 0.01$) dan penggembalaan (-2.4304 ± 0.7155 , $P < 0.001$). Faktor lingkungan pada level makrohabitat, populasi rusa dipengaruhi secara negatif oleh jarak dari pemukiman ($-4.513e-04 \pm 1.037e-04$, $P < 0.001$), sedangkan hasil analisis yang diperoleh pada level mikrohabitat, kehadiran rusa dipengaruhi secara negatif oleh kepadatan daun 30-100 cm diatas permukaan tanah (-0.042404 ± 0.007125 , $P < 0.001$). Oleh karena itu, pengelolaan habitat dan pembatasan aktivitas antropogenik penting dilakukan untuk mendukung konservasi satwa liar.

Kata Kunci: Populasi Rusa Timor, Gangguan Antropogenik, *Generalized Linier Model*, *Poisson Error Distribution*

THE EFFECT OF ANTHROPOGENIC DISTURBANCE ON THE POPULATION OF JAVAN RUSA (*Rusa timorensis* de Blainville 1822) IN NATIONAL PARK MANAGEMENT UNIT (SPTN) REGION I BEKOL BALURAN NATIONAL PARK

Sundari Marsudi, Sandy Nurvianto, Lies Rahayu Wijayanti Faida

Abstract

Javan rusa is an animal protected by the government and included in the vulnerable category in the IUCN Redlist. This is due to the decrease in population as a result of hunting and habitat loss. Anthropogenic disturbance affects the population dynamic of deer species around the world. Baluran National Park is one of the Javan Rusa habitats with anthropogenic activities in the form of harvesting, logging, grazing, hunting, and ecotourism. Therefore, this study was conducted to identify the effect of anthropogenic disturbance on the population of Javan Rusa in SPTN Region 1 Bekol Baluran National Park.

The continuous strip transect method was used to survey the Javan Rusa population. Factors of anthropogenic activities used present and absent data. Macro environment factors were obtained using spatial analysis of the Baluran National Park thematic map. Moreover, micro-habitat data were measured directly in the field. GLM (Generalized Linear Model) with a Poisson error distribution approach was used to identify the effect of anthropogenic disturbance on the deer population.

The results of the analysis showed that factors of anthropogenic activity on the deer population in SPTN Region I Bekol Baluran National Park in the dry season are negatively affected by harvesting (-1.9181 ± 0.5877 , $P < 0.01$) and grazing activities (-2.4304 ± 0.7155 , $P < 0.001$). The environmental factors at the macro-habitat level showed that deer populations are negatively affected by distance from settlements ($-4.513e-04 \pm 1.037e-04$, $P < 0.001$). Moreover, the results of analysis obtained at the micro-habitat level showed that the presence of deer is negatively influenced by leaf density of 30-100 cm above ground level (-0.042404 ± 0.007125 , $P < 0.001$). Therefore, habitat management and the limitation of anthropogenic activities are carried out to support wildlife conservation.

Keywords: Population of Javan Rusa, Anthropogenic Disturbance, Generalized Linear Model, Poisson Error Distribution