

Abstract

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“Monitoring population trends of threatened primates on Siberut Island, Indonesia”

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Abstract

Siberut island, Indonesia, harbours four of five primate species endemic to the Mentawai archipelago, including the enigmatic Simakobu monkey, one of the 25 most endangered primates worldwide. This project assessed population densities for all four species present at the field site of the Siberut Conservation Project in the Peleonan Forest in North Siberut and compared them to those of the last census carried out in 2005. All four species, *Simias concolor*, *Hylobates klossii*, *Macaca siberu*, and *Presbytis potenziani* are IUCN listed as globally threatened with declining population trends; recently three of the four species were up-listed, highlighting importance for conservation action.

The study area is situated within production forest and currently is a safe haven for primates due to rather informal agreements between researchers and local clans. It may however be affected in the future by industrial logging operations in the region. To estimate abundance, line distance sampling was conducted for all four species. In addition, this study provided a direct comparison of two different methods to estimate density and abundance of *H. klossii*, namely line-transect sampling and triangulation, which is known as a common cost efficient method of auditory sampling to estimate gibbon densities.

The study took place between 30th of August and 30th of November 2010. A line transect survey effort of 155.5 km was achieved during which a total of 489 primate groups including auditory and visual counts were encountered. *S. concolor* was detected 230, *P. potenziani* 74, *H. klossii* 101 and *M. siberu* 84 times. Individual density estimates of this survey in comparison to results from 2005 suggest no significant change in population size for all four species. Transects where indigenous people established gardens at the borders of the protected area show significantly lower individual densities of *S. concolor* in comparison to transects without those gardens. Changes in individual densities of *S. concolor* on those transects with gardens decreased significantly to previous surveys in 2005. The differences could be due to a sensitive reaction to disturbance and increased hunting pressure at the border.

Triangulation was conducted at four different locations, with each three listening posts, within the study area. There were no significant differences in cluster densities of *H. klossii* between estimates from triangulation and those from line transect surveys, confirming the reliability of earlier assessments. In the absence of reliable information from Siberut National Park, the Peleonan Forest may be one of the prime habitats for Siberut and the Mentawais.

Given the increasing pressures from logging operations, formal conservation of the Peleonan forest is urgently needed.

Keywords: Line transect sampling, Triangulation, Mentawai, Primates