

A Population Survey of the Javan Gibbon (*Hylobates moloch*) at Simpang Mountain Nature Reserve, West Java, Indonesia

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The Javan gibbon (*Hylobates moloch*) is a member of the genus *Hylobates*, along with the agile gibbon (*H. agilis* spp.) in Kalimantan and Sumatera, Kloss' gibbon (*H. klossii*) in the Mentawai Islands, the white-handed or lar gibbon (*H. lar*) in Sumatera and South East Asia, Mueller's or grey gibbon (*H. muelleri*) in Kalimantan and the pileated gibbon (*H. pileatus*) in South East Asia. The Javan gibbon is endemic to the Indonesian island of Java, and is considered to be a critically endangered species. Available information on the status of the Javan gibbon is limited and variable. At a Population and Habitat Viability Analysis (PHVA) Workshop in 1994 it was estimated that the total population consisted of only 400 animals, distributed in 21 fragmented habitats (Supriatna *et al*, 1994). Conservation International (2000) and the International Union for Conservation of Nature and Natural Resources (IUCN) have identified the Javan gibbon as one of the 25 most endangered primate species in the world. Similarly, CITES lists the Javan gibbon on Appendix 1, and the IUCN Red List (2007) identified the species as "Critically Endangered". In 2004, Nijman reported that the population had increased and estimated that there were between 4,000-4,500 Javan gibbons in total. The current population estimate of the species at Simpang Mountain Nature Reserve is of a maximum of 476 animals (Djanubudiman *et al*, 2005). Currently, the Javan gibbon is confined to a handful of protected areas in western and central Java. The overall aim of this project was to generate critical baseline data on the status of the Javan gibbon at Simpang Mountain Nature Reserve, West Java. This population survey will make an important contribution to determining the current status of the Javan gibbon in the reserve as well as providing baseline data on the status of the critically endangered species as a whole. Population density was determined using the line transect sampling methods described in "Techniques for the Study of Primate Population Ecology" (1981). Three transects were set up at the site to carry out the population survey (each transect was 3.5 km in length, and the strip width was 100 m). Each transect was sampled each day, providing a minimum of 15 survey samples. This number of surveys is needed (based on precision measures) to generate accurate estimates of population density, group density and group size in order to produce a reliable estimate of the population of Javan gibbons. The average population density was estimated to be 3.9 animals/km². Estimated group density was 1.9 groups/km², and group size was estimated at 2.0 animals (range: 1-4 animals). Based on an estimate of the viable habitat at Simpang Mountain Nature Reserve, our best estimate of the number of Javan gibbons present was 495 animals. This number was higher than in the 2005 study. During the survey, three other primate species were

observed along the transects: the silvered leaf monkey (*Trachipithecus auratus*), the Javan langur (*Presbytis comata*) and the long-tailed macaque (*Macaca fascicularis*).

A community outreach education programme for students at a local elementary school near Simpang Mountain Nature Reserve was carried out. The outreach programme was conducted at the same time as the population study. Approximately, 80 students from the 5th and 6th grades attended the programme. The outreach programme was held to promote awareness of the importance of conserving wildlife and their habitat, and also the environment. We provided a variety of books, such as national park books, wildlife books and conservation books, for the school library.

